



JANUARY 1993



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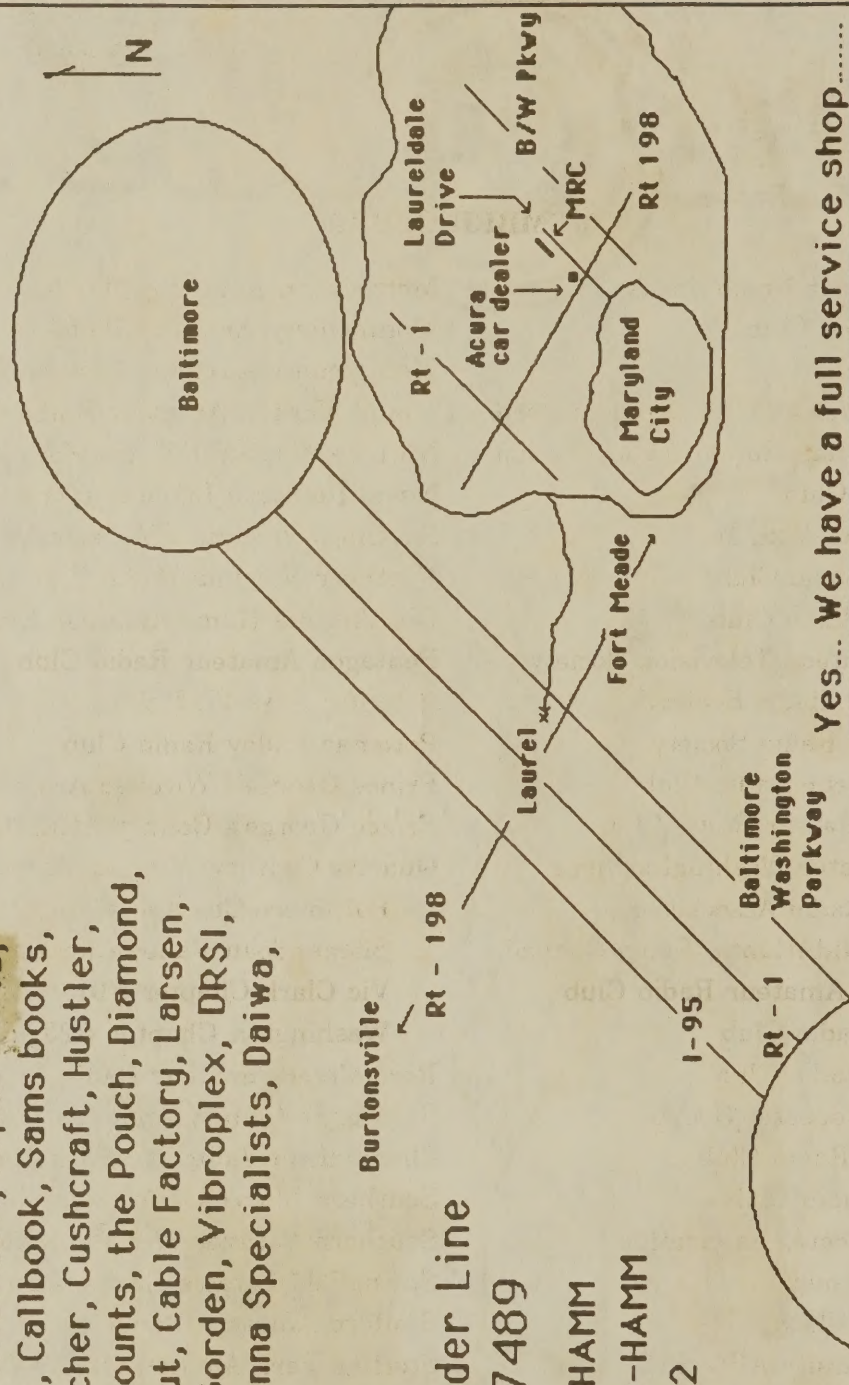
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| ARINC Amateur Radio Club | Montgomery Amateur Radio Club |
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| Amateur Radio Research and Development Corp. | Mount Vernon Amateur Radio Club |
| AMSAT - Radio Amateur Satellite Corporation | National Capital DX Association |
| Anne Arundel Radio Club | Naval Research Laboratory Radio Club |
| Antietam Radio Association, Inc. | Northern Virginia FM Association |
| Arlington Amateur Radio Club | Northern Virginia Radio Club |
| Baltimore Amateur Radio Club | Ole Virginia Hams Amateur Radio Club |
| Baltimore Radio Amateur Television Society | Pentagon Amateur Radio Club |
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| Central Maryland Amateur Radio Club | Prince George's County ARES/RACES |
| Chaverim of the Greater Washington Area | Quarter Century Wireless Association, Inc. |
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| Fauquier Amateur Radio Club | Washington Chapter #23 |
| Frederick Amateur Radio Club | Rock Creek Amateur Radio Association |
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| Goddard Amateur Radio Club | Southern Maryland Amateur Radio Club |
| Green Mountain Repeater Association | Southern Patuxent Amateur Radio Club |
| Herndon Repeater Group | Springfield Estates Elementary School ARC |
| IBM Amateur Radio Club | Stafford Amateur Radio Assn |
| Johns Hopkins University APL ARC | Sterling Park Amateur Radio Club |
| Laurel Amateur Radio Club | Summit Amateur Radio Association |
| Leisure World Amateur Radio Club | Tri-County Amateur Radio Club |
| MADRAS | T-MARC, Middle Atlantic Repeater Council |
| Maryland Emergency Phone Net | Vienna Wireless Society |
| Maryland FM Association | Voice of America Amateur Radio Club |
| Maryland Mobileers Amateur Radio Club | Washington Adventist Amateur Radio Assn. |
| Mercury Amateur Radio Assn., NE Area | Washington Area Young Ladies ARC |
| Metropolitan Communications Network | Woodbridge Wireless, Inc. |

AUTO-CALL

Official Journal of the Foundation for Amateur Radio

FOUNDATION OFFICERS

Foundation President	Tony Young, WA3YLO (301) 262-1917
Executive Vice President	Mary Morris, N4TCI (703) 971-3905
Admin. Vice President	Henry Miller, W3BWN (301) 474-7376
Vice President	Robert Armstrong, WA4SQL (703) 751-2294
Vice President	Hugh Turnbull, W3ABC (301) 927-1797
Vice President	John Chitwood, K3RGB (301) 799-7360
Vice President	Phil Russo, N3GDD (301) 552-2065
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Recording Secretary	Joe Seasey, KA3UZI (301) 725-5822
Corresponding Secretary	Ethel Smith, K4LMB (703) 536-8469

AUTO-CALL MAGAZINE STAFF

Editor	Ethel Smith, K4LMB (703) 536-8469
Circulation Manager	John Swafford, W4HU (703) 536-9537

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Coming Events

1993

Jan 17	Richmond Frostfest	
Jan 20	B.A.R.C. Mini-Fest, Timonium, MD	(Page 23)
Feb 6	Columbia Area Amateur Club Hamfest, Lancaster, PA	
Feb 21	C-CARS Hamfest, Mechanicsburg, PA	
Feb 27	Appalacian Amateur Radio Club Group Hamfest, Lebanon, PA	
Feb 28	Vienna Winterfest™, Vienna, VA	(Page 20)
Feb 28*	Cumberland County Winter Hamfest, Cam Hill, PA	
Mar 14	York Springfest, York, PA (New location this year)	
Mar 21	Two Rivers ARC Hamfest, Monroeville, PA	
	Penn-Del ARC, Monroeville, PA	
Mar 27-28	Greater Baltimore Hamboree, Timonium, MD	
Apr 3	Chesapeake ARS, Virginia Beach, VA	
Apr 11	Easter Sunday	
Apr 11*	Penn-Del ARC Hamfest, New Castle, DE	
Apr 23-25	Dayton Hamvention	
May 1*	Kent Island Hamfest, Grasonville, MD	
May 8	FAR/QCWA Annual Spring Banquet, Greenbelt, MD	
May 9	Mother's Day	
May 9*	Roanoke Valley Hamfest, Vinton (Roanoke), VA	
May 16	Warminster ARC, Wrightstown, PA	
May 21-23	Atlantic Division Convention & Rochester Hamfest, Rochester, NY	
May 15	Armed Forces Day	
May 16	Wheeling, W. VA Hamfest (West Virginia's Largest Hamfest)	
May 21-23	ARRL Atlantic Div./NY State Convention, Rochester, NY	
May 30	Maryland FM Assn. Hamfest, Howard County Fairgrounds	
Jun 6	Ole Virginia Hams Hamfest, Manassas, VA	
	Breezeshooters Hamfest, Butler, PA	
	Tamaqua Transmitter Society, Tamaqua, PA	
Jun 20	Father's Day	
Jun 20*	Frederick Hamfest, Fredrick, MD	
Jun 26-27*	Field Day	
Jul 4	Independence Day	
Jul 3-4	ARRL West Virginia State Convention, Jackson's Mill (Weston), VA	
Jul 9-11	YLRL National Convention, Wichita, KS	
Jul 11*	Carroll County Hamfest, Westminster, MD	
Jul 17-18	Southeastern Division Convention, Atlanta, Georgia	
Jul 25*	Brats Hamfest & Computer Fest, Timonium, MD	
Aug 1	Shennandoah Valley Hamfest, Berryville, VA	
Aug 13-15	ARRL National Convention, Huntsville, Alabama	
Aug 15*	Southern Patuxent Hamfest, Upper Marlboro, MD	
Aug 28-29*	Roanoke Valley Hamfest, Roanoke, VA	
Aug 29*	Hershey Park Hamfest, Hershey, PA	
Sep 12	F.A.R. Fest® 93, Gaithersburg, MD	

* Dates not confirmed

Please keep Auto-Call advised of coming Hamfests and other important Coming Events.

President's Corner

Tony Young - WA3YLO

President, Foundation For Amateur Radio

The officers and staff of the Foundation for Amateur Radio wishes all of it's member clubs, and their members, a happy and healthy 1993.

It has been another year of growth for us. Auto-Call readership is up, thanks to our faithful subscribers and the over 700 NEW subscribers who have joined us over the past two years. Thirteen new clubs have affiliated with us over those same two years. We value our support more than you know.

I find Amateur Radio and its people fun to be associated with. Launching 1993 offers another starting point for all those "ham things" we have been meaning to do. To that end, I offer the following list of resolutions for your consideration as you ponder your future. Read them as your starter list. You may choose one or more, or you may add your own. Don't be greedy and choose too many, 'cause some will cost you time, and others, money.

RESOLUTIONS FOR 1993:

- Join a local radio club (and meet great people).
- Become a participant in my local ARES/RACES group
- Upgrade my station/antennas (it's only money!)
- Check into a local NTS net (training & handling traffic is fun.)
- Share my talent, as a VE or upgrade instructor.
- Get my club involved in a community project.
- Be a club activity volunteer THIS YEAR (get involved).
- Lick that code phobia (no more empty promises)
- Pursue EME, Packet, Satellite, TV (pick one)
- Clean up my ham shack (forget that one!)

Happy 1993, everyone!

Tony - WA3YLO

Highlights of December 9 Board Meeting

Foundation Board of Trustees

Twenty-four member clubs were represented at the December meeting of the Foundation.

Minutes of the November meeting were approved. The Board reaffirmed its approval of the amendment adopted at the November meeting, which will now require that proposed amendments be read at a prior meeting and then accepted by a vote of two-thirds of the Board members present and voting at a duly called meeting.

Chuck Sommer - N4OSD has been reviewing the present By-laws and hopes to have proposals for revisions to be presented at the January meeting. (Copies of the present By-laws may be obtained upon request.)

FAR President Tony Young - WA3YLO is preparing a slide program describing the objectives of the Foundation and will be prepared to present it at local club meetings. Committee reports indicated considerable activity. The Scholarship Committee has already received 15 requests for applications for the 1993 scholarship program. F.A.R.Fest® Chairman Mary Morris - N4TCI is still looking for a big, strong hamfest co-chairman for 1993. Volunteers please contact Mary.

FCC Highlights

by Jack Kelleher - W4ZC

ARRL applies to issue certain special call signs. Last month under the title "Via the Back Door?" we mentioned three revisions to the Communications Act of 1934 (revised) which were mandated by the Telecommunications Authorization Act of 1992. One of these reads "The Commission, for purposes of providing radio club and military recreational call signs, may utilize the voluntary, uncompensated and unreimbursed services of amateur radio organizations authorized by the Commission that have tax-exempt status under section 501(c)(3) of the Internal Revenue Code of 1986".

On October 23rd 1992 a letter from ARRL was hand-delivered to Private Radio Bureau Chief Ralph Haller, in which the ARRL requested that they be designated as the sole administrator of club and military recreation call signs. The League's plan is as follows:

Applicants (i.e., trustees duly authorized by the club to hold the license for a fixed term for the club, which is the licensee) would complete FCC Form 610-B, and mail it to the League for processing. The League would review the application to determine the eligibility of the club, determine the proper call sign on a sequential basis from a dedicated block of call signs, such as WC#BAA through WC#ZZZ, and prepare the Form 660 with the call sign.

These would then be forwarded to the Commission's Gettysburg office for endorsement and mailing to the applicant. The League would also forward to the Commission a data file on each station in a Commission-specified format, with data concerning the licensee.

Renewal and modification applications would be handled in the same manner as new applications if the Commission so desires, except that club and military recreation station call signs already issued would be preserved if the club wishes to retain the call sign.

If the club wishes a new call sign from the dedicated block, it would be allowed to exchange call signs at the time of renewal or modification. Military recreation station call signs and applications would be handled in the same way as club station applications, and the call signs would be issued from the same block.

The original application and relevant records would be kept by the League for a reasonable time, should any question arise concerning a particular club or military recreation station; these records would be available as the Commission may direct, for enforcement purposes.

As to implementation, it is stated in the letter that "This letter, if acceptable to you, will constitute a letter of intent, to be formalized at a later date into a final agreement, thus to allow the League to commit its resources and commence necessary preparation to become the exclusive club and military recreation call sign administrator." The Letter of Intent has not yet been agreed to by the Commission.

(Thanks W5YI Report, November 15).

Novice Program and VEC.

Our September column reported that on July 13th FCC adopted a Notice of Proposed Rulemaking looking toward consolidating two existing ham radio operator license testing programs into one. Both the ARRL-VEC and W5YI-VEC submitted reply comments in this proceeding supporting the need to bring the Novice program under the VEC System.

The League said that there is no statistical evidence to indicate that folding the Novice program into the VEC System would greatly reduce the number of available examination opportunities. They also emphasized that the proposal was not intended to address the integrity of Novice examiners, which was never in question.

W5YI-VEC stated that it appeared many commenters believe Novices would have to travel to existing VEC System test sessions - when in reality General Class examiners could establish VEC System test sessions of their own. W5YI-VEC also suggested that the General Class examiner be permitted to administer Technician Class examinations. Noting that 73% of all examinees now enter at the Technician level, W5YI-VEC states that there can be no doubt that the Technician Class needs VEs more than the Novice level does. (Thanks W5YI Report December 1)

(Continued)

FCC Highlights - Continued

Examination Fees

FCC announced on October 30 that, effective January 1, 1993, the maximum allowable reimbursement (testing) fee for an amateur license examination will be \$5.60. This amount is based on a 3.0% increase in the Department of Labor Consumer Price Index between September 1991 and September 1992.

German Deregulation?

In our November column we excerpted an item from W5YI Report of October 1st concerning proposed new regulations for German radio amateurs. Further investigation by W5YI (See W5YI Report for November 15) indicates that the intent of the proposed changes is not complete deregulation, but an attempt by the telecommunications regulatory agency to get their national ham association to accept some of the costs and workload involved in administering Amateur Radio in Germany.

The text of the proposed regulations is too long to reproduce within the space limitations of this column, especially since the W5YI coverage includes the transcript of a telephone interview with Hans Berg-DJ6TJ of DARC (Deutsche Amateur Radio Club). Moreover, our Editors prefer several condensed reports in our columns, rather than overly-detailed coverage on a single item.

"Balance"

We receive comments, occasionally, that we give too much publicity to the "bad actors" of amateur radio. We try not to overdo this aspect of the news -- but deliberate and repeated violations of our largely self-imposed "code of ethics" are a different matter. Such behavior reflects unfavorably on all of us, and creates the erroneous impression that we are not as self-policing as we claim to be. When we run across an item which indicates that the offender is considered a pariah by his peers, and that eventually justice prevails, we publicize it as a deterrent to others who may be tempted to flout our rules.

A case in point is the lead article in the December 1st issue of W5YI Report, "FCC Shuts Down Sea-going Ham Pirate," in which the amateur community was outraged at the continued jamming and harassment; and cooperated with the authorities in pinpointing the source.

So, we will continue to help publicize this kind of blatant disregard for our traditions and rules, in proper perspective, without pillorying those who unwittingly run afoul of the regulations.

Chronic Offender Denied Ham Radio License (W5YI Report, December 1)

The FCC's Review Board has affirmed a Private Radio Bureau decision to deny an amateur radio operator license to Richard A. Burton, ex-WB6JAC of Harbor City California.

On September 11, 1981 the FCC revoked Burton's WB6JAC amateur station license and affirmed the suspension of his operator license because of his willful and repeated violations. Burton was later found in federal court on three separate occasions to have transmitted in the amateur service without a Commission license. He was convicted on four counts of transmitting with (sic) a license and two counts of transmitting obscene language.

The obscene language conviction was later overturned on First Amendment grounds. His four year sentence was reduced to six months confinement, to be followed by five years probation. The Burton sentence was later modified to include therapy when he was again found on the ham bands operating without a license.

In 1991 Burton applied to become an amateur radio licensee. The FCC designated the matter for a hearing to determine if he had the basic qualifications to become a Commission licensee and whether the grant of his application ... "would serve the public interest, convenience and necessity." The judge ruled for the FCC.

In a November 12th decision, a Review Board confirmed the administrative law judge's denial of Burton's application for an amateur station and operator license.

Burton's troubles are starting all over again. A couple of months ago, burton was again indicted for making illegal amateur radio transmissions on May 5, May 20 and July 6, 1992. He pleaded innocent and was ordered to return for trial on November 10th. The trial was postponed for two weeks, too late for W5YI's deadline.

□ □ □

American Radio Relay League Report

By John Swafford -- W4HU

This ARRL Report provides a brief summary of information published in the ARRL LETTER and other reports. The LETTER provides timely news of interest to active Radio Amateurs. Any League member may subscribe to the ARRL LETTER.

EXECUTIVE COMMITTEE MEETS.

The ARRL Executive Committee met November 14, 1992, in Denver. Here are some highlights:

- o Consideration of the revised Digital Committee report will be postponed until the 1993 annual meeting of the Board to allow sufficient time for member input to the full Board. The General Counsel was directed to seek an extension of the existing Special Temporary Authority for HF packet auto-forwarding by designated stations of 30 days past its expiration date of January 13, 1993.

- o The status of various regulatory matters was discussed, including proposals for revised "business communications" rules; VEC administration of Novice class license exams; increased FCC enforcement efforts; the League's comments in a study of future frequency requirements by the National Telecommunications and Information Administration; and the issuance of call signs to clubs and military recreational stations.

- o The Committee agreed to defer consideration of the possible reintroduction into Congress of the Amateur Radio Spectrum Protection Act until at least the January 1993 board meeting, in light of the changing of administrations in Washington and the uncertainty of the League's relationship with the FCC under that new administration.

- o The Ad Hoc Committee on the Amateur Auxiliary, which had been charged with reviewing and updating the Amateur Auxiliary Monitoring Manual, reported concluding that the Regional Monitoring Station concept needed to be overhauled, and it had to be made clearer to participants that the Amateur Auxiliary was authorized to deal only with on the air monitoring.

Work is continuing on revising the reporting procedure to place greater responsibility on the OO Coordinators and Headquarters, on clarifying liability issues, and on revising the manual with participation of FCC staff.

- o The results of a mail vote by the Board to hold the January, 1993 meeting of the Board in Jacksonville, Florida were reported as eight in favor and seven opposed.

- o The Committee voted that ARRL will seek legislation to provide immunity from civil liability for its volunteers who perform services as volunteers for government agencies. A distinctive number will be sought for the legislation.

Hams are Communications Backbone When Hurricane Iniki Slams Hawaii.

On Friday, September 11, 1992, Hurricane Iniki slammed into the Hawaiian island of Kauai, the northwestern-most of the Hawaiian Islands chain. In a matter of hours the 51,000 residents experienced the effects of 165 mph winds. More than 8,000 people became homeless when more than 7,000 homes were either destroyed or severely damaged. The storm caused an estimated \$1.6 billion in insured losses to both homes and businesses and left an estimated 6,500 people without jobs.

Fortunately, Hurricane Iniki did not directly cause any deaths on Kauai.

Kauai Amateurs banded together on the radio and behind the scenes, putting on an incredible display of operating skill combined with a unique kind of aloha spirit for getting things done.

From his office at the National Weather Service in Honolulu International Airport, weatherman Mike Morrow, KH6JQM, activated the Skywarn radio net. He was soon joined by Ronald Henry, N9KWW, and Bill Stookey, WH6EL. The Skywarn net collected weather observations from Amateur radio operators and relayed the latest weather analysis. When the NOAA radio failed later that day, Skywarn turned to Amateur Radio.

(Continued)

ARRL Report - Continued

As the storm pressed on, the news media on Oahu reported only that "Ham radio operators are in touch with Kauai, but we have no additional word on damage or other status." With all services knocked out and people huddling in shelters and homes, reports were few and far between.

Safe within the basement of the Kauai County Building and powered by a generator, NH6HF's VHF voice and packet radios became the last remaining links from Kauai. Liu apprised Ikeda of the latest storm position and forecast by reading the National Weather Service teletype bulletins. At 4 p.m., during the height of the storm, the mayor asked Ikeda to contact Governor John Waihee via Amateur Radio. Billy Gomban, KH6JPL, the hawaiian Tel ARC repeater trustee, offered the use of the repeater's telephone autopatch. Liu obtained the repeater's control codes from Gomban and initiated the repeater's reverse autopatch for the governor.

The Hurricane Passes.

By 7:30 p.m., the storm had subsided enough for people to come outside and move about. All power and water service on Kauai was gone. Through the faint glow of the moon residents could see that many homes had lost roofs, walls, and contents. Driving was hampered by the pitch black roads, tree branches, debris and fallen utility poles.

Flying to Kauai.

Several hams were among the first relief workers to fly to Kauai following the hurricane. Motorola repair people Robin Liu, AH6CP, flew on a Chinook Military helicopter, and George Hanzawa, KH6JUJ, flew aboard a Hawaii Air Ambulance plane to restore the state government radios and Emergency Medical System. Hawaiian Tel engineer Vince Soeda, KH6KW, left on another helicopter to lead the restoration of the island-wide and inter-island microwave systems.

Oahu and the Aftermath.

The Waianae coastline on Oahu's western shore suffered extensive damage from the huge surf and storm tides from Hurricane Iniki that sent waves crashing into the second floors of the beachside apartments.

By Saturday afternoon all kidney dialysis patients were safely flown to Oahu. Inter-island telephone service was restored by Sunday evening and Tel engineer Soeda credits the KH6JPL repeater with shaving a least a full day off the repair job. All the ham volunteers returned safely to Oahu, exhausted but satisfied.

A videoconference of the Iniki efforts was unlinked to the ARRL Pacificon convention in Concord, California, and relayed in the San Francisco Bay area on Saturday, October 17.

Lessons Learned.

The loss of the telephone system was both a blessing and a curse. The Amateurs stepped in immediately and provided communications to coordinate the emergency and relief efforts yet could not handle the crushing volume of incoming health and welfare inquiries that began pouring into Hawaii.

Kauai's isolation hampered additional Amateurs from flying onto the island. Civil Defense and relief agency officials prioritized and limited the initial number of Amateurs who could participate, due to the limited number of seats and also concern for personal liability.

In an instant, the media and the general public became very interested in Amateur Radio. But the Amateurs were so completely involved in their relief work that, consequently, they were not totally prepared during the media interviews to present Amateur Radio in a concise but meaningful fashion.

Amateur Radio operators in Hawaii performed extremely well during Hurricane Iniki despite the short notice. Persistent efforts by Amateurs to maintain continuous radio communications accelerated the relief effort and ultimately benefitted virtually everyone on Kauai.

ARRL Renews Support for VEC Novice Testing. The ARRL has urged the FCC to proceed with a plan proposed in July to require Novice class license examinations to be administered by the volunteer examiner coordinator (VEC) program, which now administers all other license class examinations. The Notice of Proposed Rule Making (in PR Docket 92-154 and detailed in September QST, page 116), was based on suggestions made by the ARRL and W5YI volunteer examiner coordinators.

ARRL Report - Continued

In reply comments filed November 9 the League addressed concerns of several groups, mainly 1) as to whether there is a perceived problem with the integrity of the current Novice examination program; and 2) that bringing Novice examinations within the VEC system would greatly reduce the number of available examinations in some geographic areas.

The League's reply comments stressed that the proposal was not intended to address the integrity of Novice exams, which has never been in question.

As for the lack of exam opportunities in sparsely populated areas, the League said there was no statistical evidence of such. The League did note that the Commission has in the past made allowance for Amateurs, particularly in Alaska, in order to ensure equitable treatment for them compared with licensees in other states.

Al Slater, G3FXB, Dead at 65.

Al Slater, G3FXB, died Wednesday, November 11, 1992, at age 65, of a heart attack. He was known worldwide as a premier operator and an ambassador for Amateur Radio. He most recent honor was election to the CQ Contest Hall of Fame.

According to his wife, Al had been out the night before his death cranking down his tower to protect his antennas in heavy winds. He had retired some years ago after suffering a mild heart attack.

G3FXB was one of the most active HF contest operators of the last two decades on both SSB and CW and was at the top of the Mixed DXCC Honor Roll. He also was a mainstay of the First Class CW Operators Club and was a frequent visitor to the United States. He also had visited Australia and New Zealand in recent years, and had visited the Soviet Union as a private citizen soon after the glasnost and perestroika of Mikhail Gorbachev.

BRIEFS.

o The son of ARRL founder Hiram Percy Maxim has died. Hiram Hamilton Maxim, 92, died November 2 in Simsbury, Connecticut. "Ham," as he was called, was the widower of Alison Heminway Maxim. He graduated from the Massachusetts Institute of Technology in 1921, returned home to work for his father, and took over the company, Maxim Silence, when HPM became a Silent Key in 1936.

Hiram Hamilton Maxim leaves a son, Hiram Percy Maxim II, and a daughter-in-law, a sister, and three grandchildren. A memorial service was held November 7.

o Publisher's Weekly's 1991 survey of technical books finds that the average price of a hardcover release was \$46.38. The 1992 ARRL Handbook, weighing in at more than 1,200 pages, costs \$25.

o Dennis Bodson - W4PWF, was elected Vice Director for the Roanoke Division.

Foundation Meetings

The Foundation for Amateur Radio, Inc. meets at 8:00 p.m. on the second Wednesday of each month.

Visitors are always welcome

Phone (301) 725-5822 for information

The next meeting will be on January 13 at the

Lee Center, Alexandria, Virginia

Take Capital Beltway to Exit 1,

North to the second traffic light, Left on Gibbon Street to Fayette

Left on Fayette to dead end at Lee Center parking lot.

Talk-in on 146.55

THE NEW GENERATION ROTATORS

THEY'RE NOT YOUR FATHER'S HAM "M"

Rotator Comparison Chart

	The New Generation									Old Generation	
Model/Specs	Create RCS	Create RCSA	Create RCSB	Emoto 105TSX	Emoto 747SRX	Emoto 1105MSX	Emoto 1200FXOT	Emoto 1300MSAX	Emoto 1600FSX	Telex HamIV	Telex T2X
Rotator Torque Ft/Lb	43	116	160	37	50	57	143	215	287	67	83
GD ² Kg/M Ant. Inertia	N/A	N/A	N/A	100	400	700	1000	1800	3000	N/A	N/A
Brk/Static Torque Ft/Lb	506	1085	1450	215	502	717	1290	1792	2150	417	750
Wind Load In Tower (ft)	10	25	25	11	22	27	27	33	38	15	20
Mast mount	4	5	7	5	9	12	12	15	16	7.5	10
Rotating speed 360°	60-150 sec variable	60-150 sec variable	60-150 sec variable	55	35	65	40	77	80	60	60
Rev. Delay	None	2 sec	3 sec							None	None
Preset	Opt 3	Opt 3	yes	no	no	Opt	yes	yes	yes	no	no
Computer	no	no	no	no	yes	yes	yes	yes	yes	no	no
Power 120V 60Hz	80VA	140VA	200VA	70VA	70VA	70VA	90VA	120VA	150VA	26V AC	26V AC
Mast Dia	2-2.5 in	2-2.5 in	2-2.5 in	2-2.4 in	1.6-2.4 in	1.6-2.4 in	1.6-2.4 in	2.4-3.1 in	3.5-5.5 in	2 in	2 in
Control wire	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	8 cond	8 cond
Vertical max. load #	880	1540	1540	660	1100	880	1760	1760	2200	400	800
Rotor w/e	13	17	20	7.5	9	11	11	13	39.5	24	28
Brake type	worm drive	worm drive	worm drive	disk	friction	friction	friction	friction	friction	wedge	wedge
Self center mast clamp	yes	yes	yes	Adj	Adj	Adj	Adj	Adj	Adj	no	no
Special helix	3-6	3-6	3-6	6	1-6	6	2-6	6	6	4-7	4-7
Pricing (\$)	\$269.00	449.95	799.00	209.95	399.00	589.00	679.00	1099.00	3272.00	369.95	439.95
With Preset	\$379.00	\$528.95				\$663.00					

Notes:

1. Turns Tribander 4700 in 35 seconds

4. T2X and HamIV have same motor and gear train parts

7. 120V normal 220V special order

2. Variable speed 40 sec max

5. EEB prices as of 5/91 subject to change

8. Wind Load in Sq. Feet

3. Variable speed w/SCR constant rotational torque at any speed

6. 120/220 taped transformer

THE NEW GENERATION

An entire generation of amateurs have grown up knowing only one rotator manufacturer. Those old favorites are still popular. But, now a new generation of rotators are out to set high standards with innovative features such as: large machined steel gears, cast and machined aluminum cases, solid state controllers for smooth start/stop, preset, computer control and circular position indicators.

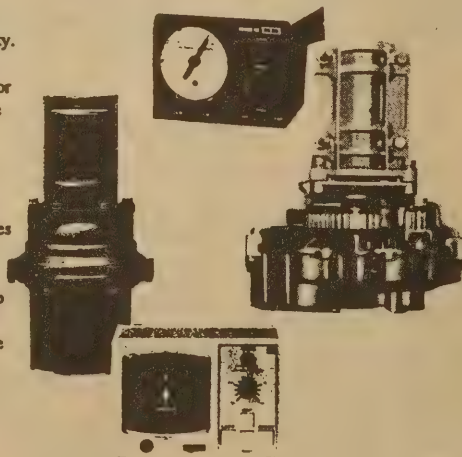
The bottom line is... strong, long term reliability, ease of operation and cost effectiveness. When you erect an antenna system the last thing you need is rotor problems!

CREATIVE DESIGN ROTATORS

CREATE is serious about long term reliability. The CREATE RCS series rotators were designed with the serious DX'er in mind. Three models for medium, large and ultra large antenna arrays are available.

ROTOR FEATURES OF RCS SERIES

* Large strong reduction gear system provides long term reliability during years of rugged operation. * Worm drive gearing provides powerful braking force and low backlash to keep your antenna in position during severe weather conditions. * Cast and machined aluminum case provide the strength required for long lasting service. * Mast clamp guides for ease of mast installation.



CONTROLLER FEATURES OF RCS SERIES

* Speed control using silicon control rectifiers allows slow speed without reduction in rotation torque. Rotating spec is constant 60 to 200 seconds per 360 degrees. * Reverse delay control (RDC). Delays reverse command to rotor until antenna is at rest. Prevents damage to rotor antenna and tower system. * Circular dial indicator, for quick accurate reading of antenna direction. Great circle overlay available for USA (west-cent-east). * Preset (on 3 models) a must for quick setting of antenna direction. Just turn the knob to the new heading, the rest is automatic. Won't waste your time holding down the brake lever and wait.

EMOTO ROTATORS

More than 60% of all Japan amateurs use EMOTO rotators. Many unique innovations and international patents have made EMOTO number one.

EMOTO has a fool proof method to calculate which of their rotators will satisfy your needs. This GD² formula considers your antenna (s) weight, boom and longest element length. The EMOTO sheet is in metric so one must convert weight 2.2lbs= 1kg and length in meters 3.3ft=1 meter. Calculate your GD² than compare EMOTO GD² spec above.

$$GD^2 = W \times \frac{L^2 + B^2}{12}$$

Where: W: weight of antenna (kg)

L: length of longest element (m)

B: length of boom(m)

GD² EXAMPLES: Kgm²

TH7DX (437), TH3JR (63), 205BA (675), DISC7-3 (1300), A3S (61), A4S (173), KLM KT34XA (378), 3 ELE TRIBAND (150), 6 ELE TRIBAND (400), 20M 5 ELE (750), 15M 6 ELE (650), 40M 2 ELE SHORT BOOM (240), 40M 2 ELE FULL BOOM (800), 80M 2 ELE (1500), STACK ARRAYS 10M 5 ELE (60), 15M 5 ELE (200), 20M 5 ELE (750), 60+200+750=1010

EMOTO also has a robust AZ-EL rotator that has computer I/O ports. For those working satellites or EME moon bounce the EV700DSX should do the job, as rotating torque is more than double the YAESU G5400B AZ-EL.



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Public Service Report

Hank Black - N3ESR

(301) 340-8595

Material for the PUBLIC SERVICE REPORT can be left to N3ESR on the WA3ZNW packet bulletin board on 145.090 MHz, called by telephone, or mailed electronically by modem on arrangements, or mailed to Public Service Report, 105 North Van Buren St., Rockville, MD 20850-1860.

Deadline for receipt of material is the third of the month.

MONTGOMERY COUNTY RACES PARTICIPATES IN EXERCISE

On Saturday, October 17, 1992, a joint disaster exercise was held involving Montgomery County RACES, the Mid-Atlantic DOGS (Dogs Organized for Ground Search), Medical Explorer Post 1984, and two local hospital officials. The scenario was an explosion of unknown origin at a high school with classes in session which resulted in many being injured.

The Montgomery County Hospital Radio Net (HRN) and the Montgomery County Radio Amateur Civil Emergency Service (RACES) organization were activated. HRN stations at Suburban, Montgomery General, and Washington Adventist hospitals were placed on the air by RACES operators, assisted by security and emergency room staff.

From the disaster site, communications were established with the Montgomery County Government Disaster Operations Room (DOR), the search teams, and the county emergency medical service channel (EMS 1 - simulated using an Amateur 222 MHz band repeater). These three communications nets were part of command and control at the disaster site.

Thirty-two "victims" were found by the three search-dog teams. The eleven members of Medical Explorer Post 1984 served on a re-cycling basis as "victims." Patient status was passed by the Triage Officer, Frank Fisher of Washington Adventist Hospital, to the DOR on the triage net. Al Taylor - KN3U, served as the Medical Control Officer. Incoming patient information was sent over the Hospital Radio Net.

During the exercise, traffic in the form of three Situation Reports was passed from the DOR to the State Emergency Operations Center in Pikesville, Maryland (which was conducting its monthly statewide communications exercise [COMMEX] in concert with the A.R.R.L. MDC Section's Simulated Emergency Test). On the previous day, a real disaster occurred when the communications tower on the DOR building's roof collapsed putting the DOR RACES base stations out of service. A temporary antenna was erected atop the nearby four-story parking garage.

Participating Amateurs were: Tim - N3MRF, Tim - N3LQK, Kevin - N3LGA, Dave - WA3ZOR, Rip - KC3H, Jerry - N3HVC, Jeff - KZ3F, Dick - K3DML, Ross - WA2WDT, Irv - N3LDY, Howard - K3IOG, Don - N3LHZ, Susan - WB3DPN, Al - KN3U, Charlie - WA3HNN, Jim - N3CLL and Rob - N3HQP.

(This article was summarized from material submitted by Robert Whitely - N3HQP, Deputy RACES Officer.)

(Continued)

Public Service Report - Continued

NOTHING STOPS AMATEUR RADIO OPERATORS

Neither a CQ Worldwide Contest nor an important Redskins game deterred 65 Amateur Radio operators from providing communications support for the Seventeenth Annual Marine Corps Marathon. This is one of Amateur Radio's largest public service activities in the Capital Area, with support provided for over 12,000 participants.

Amateur Radio provided emergency medical communications and television coverage for the event. Three separate voice nets were operated. A medical alert net was used to notify the chief medical officer of runner injuries. Participants in this net were at 22 critical locations throughout the 26-mile race route. An ambulance dispatch net directed the response of 19 civilian and military ambulances to transport injured runners to aid stations or area hospitals. Six stations in the hospital net alerted area hospitals of incoming patients and provided vital signs and a report of the nature of the injury. A packet net was also operated to pass detailed runner information as needed.

The nets were very active, as over forty medical incidents were handled by Amateur Radio. Amateur television provided the Marathon Command Post with live video of the progress of the race from a camera mounted on a vehicle ahead of the lead runner. The chief medical officer was extremely pleased with the ham radio communications support provided.

The success of this support could not have been possible without the outstanding participation of the following Amateurs: WI3A, N4ASX, KB2BNX, N4BV, N4BYF, KD4CCT, KB2CEV, N3CLL, WA4CQV, KD4CSO, N4CWP, KD4DFD, WB3DIO, NH6E, WB4EEA, KC4EFJ, N3EQL, AD3F, KD4FBS, N1FFN, W4FQT, KD4FRK, KK4GB, KD4GCX, WA2GIN, W2GJS, KA3GRW, N4GUS, N4HCP, KI4HK, N3HGX, AC4HW, KC9I, NK3I, KC4IGS, N3IWM, N3JFW, KD4JQW, KN4JS, N3KBE, N3LDY, N3LGF, N3LHB, N3LOL, WA4LTO, KD4NSE, KB4NTW, KC4NUE, KC4OCG, N4QOS, KC4RON, N4SCK, AC4SM, KE4TZ, KD3VK, KA3VNE, WA2WDT, KC4WES, KA3WPD, WB4WZZ, KM4XG, N4YPR, N4ZGI, KA3ZPA.

Communication operations were greatly facilitated by the following repeaters whose trustees made them available for primary or alternate use during the marathon: N3AGB/R, W3DOS/R, W4HFH/R, WD4IWG/R, WD4PDP/R, & W4XG/R. Thanks to all!

- Submitted by David Buell - AA6RM -

VOLUNTEERS RESPOND TO TELEPHONE OUTAGE AT HOSPITAL

On Friday the 13th of November at 12:10 p.m., the phones went out at Southern Maryland Hospital. Prince George's County ARES/RACES was called to help by the hospital's communications supervisor. Calls were sent out for volunteers on the Tri-County Amateur Radio Club and the Southern Maryland Amateur Radio Club repeaters.

Results were not so good at first. Gould Turney - KA3DUE, joined George Dewees - KA3KIF, the Prince George's County Emergency Coordinator (EC), on the repeaters taking over as the net control station (NCS). This freed up George to make phone calls including the activation of the National Capital ARES Council (NCAC) Emergency Coordinators' pagers.

Sue Carpenter advised George that she had a car full of groceries but would be glad to help once she unloaded her car. Gordon - KA3MWN, advised the NCS that he was in route. Shortly thereafter, George was headed to the hospital with a base station. The hospital has an antenna which terminates in the telephone communications room which was installed in the National Disaster Medical System exercise days of 1986.

(Continued)

Public Service Report - Continued

Once KA3MWN advised the EC he was on the scene, he received instructions to determine the hospital's priorities and station arriving volunteers accordingly. Sue-N3LVY, was sent to the emergency room. Rich-KA3BTB, went to labor and delivery (and monitored the babies crying).

Net control was ready as others started arriving, initially manning 12 of the 21 stations required. Requests for cellular telephones were made to the Prince George's County Office of Emergency Preparedness (OEP) via Amateur Radio in Pikesville, Maryland. By 1:30 p.m. Gould Turney advised net control that a lot more people were on the way. The NCAC area was soon well represented. (Thanks to all who responded.) As reports from the telephone repair people did not sound good at the time, the group on the way seemed a mighty good thing to those at the hospital.

At 2:12 p.m. the telephone operator advised that the telephone system was coming back. All breathed a sigh of relief. All stations reported their telephones were working. The telephone repair people requested that the Amateur Radio operators stay on duty for about another 30 minutes until all was safely secured.

Thanks to all who responded. Those underway when things were secured and the following: KA3MWN, KA3BTB, N3LVY, N3KYK, W3ERU, WI3A, KA3ZPA, WA3YLO, N3BSI, N4SCK, NV3G, N3BYG, N3ESR, KA3DUE, the hospital communications staff, and the people who fed RAY-WI3A while he was back in the EKG room.

-Submitted by George Dewees - KA3KIF, Prince George's County EC.

AMATEUR RADIO AND THE MILITARY DISTRICT OF WASHINGTON

As the result of recent meetings with the principal planning and operations staff of the Military District of Washington, it was agreed that Amateur Radio support could play an important role in supporting the Army mission of Military Support to Civil Authorities in the Washington area.

The mission of the Military District of Washington in time of disaster or civil unrest is to coordinate the use of military resources as requested by civil governmental authorities. This coordination requires communications among a variety of agencies and jurisdictions. It is recognized that Amateur Radio has the flexibility to provide such inter-agency links that may not be possible using just the communications systems unique to each jurisdiction, and to serve as back-up and auxiliary means when other systems are overtaxed or rendered inoperable.

An Amateur VHF/UHF radio antenna will be installed at the Military District of Washington Emergency Operations Center (EOC), located at Fort McNair, and an operating position will be designated. It is anticipated that emergency response communications plans will fully integrate Amateur Radio. The staff hopes to have the opportunity to participate in emergency drills where Amateur Radio support can be used.

The Military District has responsibility for all Army installations within the District of Columbia and Fort Belvoir in Virginia, and for military support to the surrounding civilian communities. Within the next year or two, its area of responsibility will expand to include all Army installations from Fort Ritchie, Maryland south to Fort A.P Hill, Virginia. The planning staff would like Amateur Radio support to expand accordingly.

-Submitted by David Buell - AA6RM, Acting Emergency Coordinator,
Military District of Washington.

(Continued)

Public Service Report - Continued

SKYWARN ACTIVATED FOR TORNADO WARNING

The National Weather Service (NWS) Washington Forecast Office activated SKYWARN for tornado watches and warnings as a cold front with a history of violence crossed the National Capital Area. The same weather system wrecked havoc and spawned a number of tornados in the south central portion of the United States on November 22, 1992.

At 1 a.m. on November 23rd, Madison and Greene counties in Virginia were under a tornado warning. The SKYWARN telephone call list was used to notify three Amateurs (with appropriate apologies for calling so late [early?]) to bring up a weather watch net on the Culpeper 147.12 MHz repeater.

Roy - KC4YGB, relayed information from Culpeper to net control at Sterling NWS which was manned by Joe - WB4WZZ, and Gary - KD4SDX until 4 a.m. The main SKYWARN net had checkins from sub nets in the southern and northern Shenandoah Valley, Virginia and Hagerstown, Maryland areas as well as from many stations within the coverage of the 147.300 MHz Bluemont, Virginia, WA4TSC repeater. Judy - KC4WES and Dan - KC4OCG coordinated the Amateur Radio SKYWARN activations from their homes.

Nelson County, Virginia reported 1 and 3/4 inch diameter hail. Also as a result of the storm, trees were downed and a few houses lost their roofs in Madison County, Virginia. A trailer was destroyed and trees and power lines were downed in Greene County, Virginia. A small Tornado (F1) did touch down in Silver Hill, Maryland with winds estimated at between 100-115 mph, with higher gusts.

Much thanks goes to all those who lost sleep and stayed with the net until it was secured. It was reassuring to be able to activate a useful net in the middle of the night. This late night activation highlighted the need for a better alerting system for amateur radio SKYWARN spotters. A project for 1993!

We have prepared a first draft of a SKYWARN Amateur Radio Network map showing the county names and outlines as well as the repeater frequencies and locations of the new expanded SKYWARN area. No doubt the map will be revised after it is put to work under real conditions and as facilities change. We plan to publish the map in Auto-Call during the first quarter of 1993. Much thanks goes to Ross Merlin - WA2WDT, whose computer map-making expertise took a mapping idea and turned it into an extremely useful tool for the SKYWARN program. It was used very successfully during the November 23rd activation.

A first draft of the revised SKYWARN net control operations manual should be available for the net control training session in mid December, 1992. The next net control training session is scheduled for January 23, 1993. We hope that this manual will help to make the net operate in a more consistent and efficient manner.

A photograph of the Sterling, Virginia SKYWARN amateur radio station appeared in the December 1992 QST article on the amateur radio community's response to Hurricane Andrew. Shown at the station were Jan - K2HJ and Joe - WB4WZZ. We were proud to be able to provide the National Weather Service with emergency backup HF communications to Florida, if necessary. We are very pleased that QST chose to document our volunteer activities.

-Submitted by Dan Gropper, KC4OCG, Net Manager, SKYWARN

(Continued)

DX DX DX

John Kanode, N4MM

CROATIA, SLOVENIA AND BOSNIA-HERCEGOVINA ADDED TO DXCC LIST

On November 25th, the ARRL Awards Committee voted to accept three recommendations of the DX Advisory Committee. These votes add Croatia (9A - formerly YU2), Slovenia (S5 - formerly YU3) and Bosnia-Herzegovina (4N4, YU4) to the ARRL DXCC Countries List.

Croatia and Slovenia are added for contacts made 26 June 1991 and after.

Bosnia-Herzegovina is added for contacts made 15 October 1991 and after. The DXCC Desk will accept cards received at ARRL Headquarters after 1 January 1993. Cards received before 1 January will be returned without action.

A DXAC recommendation to add The Former Yugoslav of Macedonia (4N5, YU5) to the DXCC List remains under study by the ARRL Awards Committee. A vote has not yet been scheduled on that recommendation.

UPCOMING DX CONTESTS:

AGCW-DL QRP Winter Contest	January 2-3
HA-DX Contest	January 16-17
CQ WW 160-Meter DX Contest	January 29-30
REF French Contest	January 30-31

UPCOMING DXPEDITIONS

Antigua	V2/VE3BW	Jan 1-29
Baker/Howland	KH1/K9AJ	Jan 26-Feb 3
Minami Torishima	JA9IPX/JD1	Now to Jan 14
Navassa Island	KP1/W5IJU	Mar 26-Apr 3
Kingman Reef/	KP5K	Feb/March
Palmyra Island	KP5	Feb/March

TIDBITS:

The following operations have been accepted for DXCC credits:

D2/F6BLQ D2CW D2FGC ET3BC ET3YL JT1/K7HDK KP5/NØTG PYØTSN S21ZC
S79CW TA/DK7PE AHØG/TF/P TU4EF VS6/DK7PE ZB2/IKØFVC ZS9/DK9PE

9A, Croatia QSL Bureau address: HRS, Box 564, 41000 Zagreb, Croatia

S5, Slovenia QSL Bureau address: ZRS, Box 180, 61001 Ljubljana, Slovenia

4N5, YU5, former Yugoslav Republic of Macedonia QSL Bureau address: Sojuz na Radioamaterite na Makedonija, PO Box 14, 91001 Skopje, former Yugoslav Republic of Macedonia, Europe.

Carl and Martha Henson have filed a petition with the DXAC in regards to adding Eritrea to the DXCC Countries List. They have recently been in Eritrea and received permission to operate using the calls 9ER1TA and 9ER1TB. Eritrea used to be a separate country before November of 1962. It became part of Ethiopia in 1962 and was deleted at that time. Recent events there have changed the situation. More on this as time goes on.

North Korea- another pirate??? Activity by P5DTG in the past few weeks has been off and on. No one for sure knows if this station is real or not. Beam headings from the US seem correct but stations in Japan say that the station is north of Japan. The operator says to QSL via OK1DTG. Without any official licenses or documents from the PTT or whoever handles such matters in North Korea, this operation, if it is really from within the country, will not be accepted for DXCC credit.

The Republic of Moldova has been admitted to the ITU.

New name for HI, Dominican Republic. According to recent news sources, the Dominican Republic has changed its name to Dominicana, which is an abbreviation of its official Spanish name-- La Republica Dominicana.

(Continued)

Public Service Report - Continued

SKYWARN TRAINING SCHEDULE

- Jan. 12** Winter Storms, Washington Service Forecast Office (WSFO)
Sterling, VA, 7-9 p.m.
- Jan. 23** Net Control Training, WSFO Sterling, VA, 1-3 p.m.
Basic SKYWARN Spotter Training, Cumberland, MD, 6-9 p.m.
(location to be announced)
- Feb. 22** Basic SKYWARN Spotter Training, WSFO Sterling, VA, 7-10 p.m.
- Future** Basic SKYWARN Spotter Training, Howard County, MD (details to be announced)

Pre-registration for Training is **REQUIRED**.

Please call the WSFO at (703) 260-0107 for information and/or registration.

PUBLIC SERVICE CALENDAR

- Sundays** National Capital ARES Council Nets, 9 p.m.
146.91 MHz (if not available, 146.79 MHz)
- Jan. 9** National Capital ARES Council Meeting, 10 a.m.
Alexandria, VA (location to be announced)
- Mar. 26-28** Virginia Special Olympics Spring Games, Fairfax County, VA
Contact: Ed Ober - KC4EFJ, (703) 591-0422 or
Bob Lewis - N4SCK, (703) 830-3495 or 830-7325 answering machine
- May 22-23** American Lung Association Clean Air Challenge
(150 mile bike trek Fairfax-Richmond)
Contact: Bob Lewis - N4SCK or Ed Ober - KC4EFJ
-

DX Report - Continued

USA QSLING INFO FOR ROMEO STEPANENKO, 3W3RR-AH0M OPERATIONS

1S0XV, 1S1RR, 3W7A, 3W100HCM, XV100HCM and XV0SU via W4FRU.

YA0RR via W8BLA

1S0RR (Sept 1991) W8BLA

XY0RR via LZ/3W3RR

9D0RR via NT2X

EK0RR/AM, EK0RR/MM, 3W3RR/ etc via LZ/3W3RR

AH0M/W1-8, VE2, VE3 via W1 ARRL QSL Bureau.

LZ/3W3RR address is PO Box 812, Sofia 1000, Bulgaria (for QSL cards only)

Letters may be sent to PO Box 308 Moscow 103009, Russia

✕ ✕ ✕

Training Classes

Robert Armstrong, WA4SQL

44 South French Street, Alexandria, VA 22304

Phone (703) 751-2294

General and Upgrade classes, Odenton, MD. Starting January 10. Classes will be held at the Odenton Fire Station on Sunday afternoons from 1:00 - 4:00 p.m. For further information contact John at (410) 551-3161.

General through Extra class upgrade classes. Alexandria, VA. Starting January 25. Sponsored by the Mount Vernon Amateur Radio Club. High speed CW (20 wpm) will be emphasized. Classes will be held on Monday evenings from 7:30 to 9:30 p.m. and will run for about 17 weeks. There is no charge for the class but students will be expected to supply their own ARRL license manuals. The new class is scheduled to be held at the Seminary, but it may possibly be moved to a new location. For details, call John - WZ4A at (703-971-3905).

Novice/Technician Class. Davidson, MD. Starting February 6. Sponsored by the Anne Arundel Radio Club. Classes will be held on Saturday mornings from 9:30 - Noon and run for 11 weeks, using the *"Now You're Talking"* text. Optional tutorial code practice will be available. Contact Tony Young - WA3YLO (301) 262-1917 or Holly Bevan - N3BMB (410) 923-0229.

General Class Training, Laurel, MD. Starting 15 February. Sponsored by the Laurel Amateur Radio Club. Classes will be held on Mondays at 1900L in the Harrison-Beard building, Laurel, MD. They should run from 8-10 weeks and will not include code. For more information call Pud - W3DQI (301) 498-6293.

General Upgrade Class, Herndon, VA. Starting in early March. Sponsored by Herndon Repeater Group. Classes will be held on Saturday mornings from 9:00 a.m. to 12:00 Noon and will run for six weeks. This course is designed for those upgrading from Technician plus. General theory lectures will be provided and code speed will be increased from 5 to 13 wpm. Contact Mike - WB8RDN to register.

Novice Training Classes, N.W. Washington, DC. Sponsored by MADRAS. For more information contact Larry Zeichek - N3GKZ (301) 984-6112.

Novice Training Classes, Towson, MD. Sponsored by BRATS. Classes are being held on an on-going basis every Tuesday evening at the Towson Armory. Classes are free; Materials (which you keep) consist of a book and tape and cost \$19.90. For registration or information, contact Joe Chidester - W3SHZ (410) 602-0353

VIRGINIA TRAFFIC TRAINING NET - 3685 kHz 6:30 p.m. daily. 5 - 8 wpm.

SLOW CODE PRACTICE NET, 28.250 MHz 7:00 to 8:00 p.m. Wednesdays. Sponsored by Woodbridge Wireless, Inc

Please keep Auto-Call advised of Training Classes

Happy New Year



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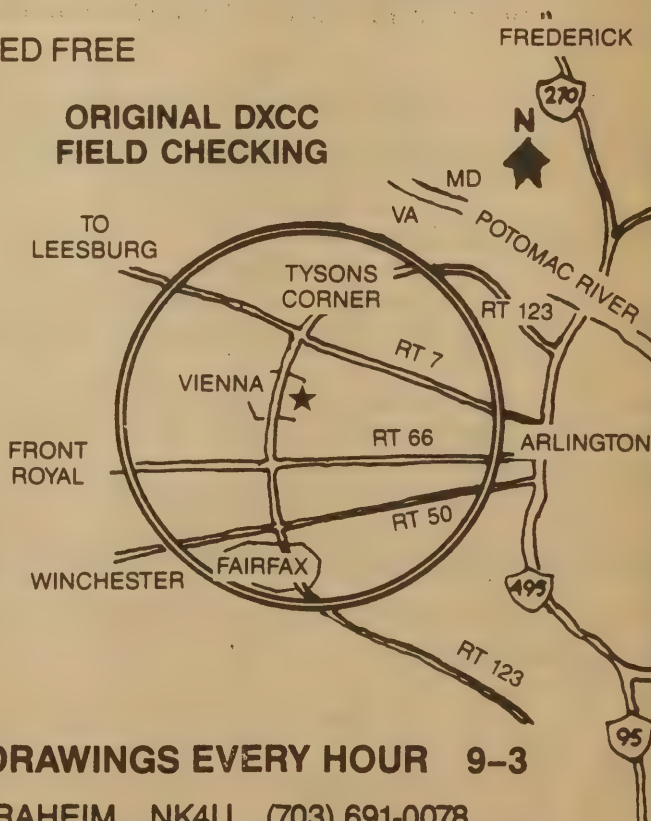
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146.190in 146.790out

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FOR INFO . . . NANCY DRAHEIM NK4U (703) 691-0078

FOR TABLES CALL . . . HARRY KAKLIKIAN W4ACN (703) 978-4402

AN ARRL SANCTIONED HAMFEST

FOUNDATION FOR AMATEUR RADIO
Volunteer Examiner Cooperative

Nancy Draheim - NK4U
3513 Old Post Road, Fairfax, VA 22030
(703) 691-0078

SCHEDULE OF EXAMINATIONS
1993

NOTICE: If you presently have a Technician class license which was acquired prior to March 21 1987, keep a copy of this license available when you decide to upgrade to General class. It will be your responsibility to prove you are grandfathered for Element 3B (General Theory).

- Jan 3 D.C.M. ARC (Landover MD) (ARRL VEC) Walk-in
Contact Freddie Battle, NG3G (202) 546-9348 (Days) (301) 773-2898 (Evenings)
- Jan 9 Anne Arundel Radio Club (Davidsonville, MD) (Laurel VEC) Walk-in
Contact: Nancy Alley, NT3Z (410) 761-7115 or Bob Israel, WC3I (301) 262-5083
Chesapeake DX Assn. (Chesapeake, VA) (ARRL VEC)
Contact: Bill Verebely, KC4YX (804) 424-4764
Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Walk-in
Contact: Frank Mackey, N4GUS (703) 455-1510
George Washington U/Dept. of State (Washington, D.C.) (ARRL VEC) Limited Walk-in
Contact: Derrill Rohlf, W3WOX (301) 423-0179
- Jan 15 Laurel ARC (Laurel, MD) (Laurel VEC) Pre-registration desirable
Contact: John Creel, WB3GXW (301) 572-5124 after 6 p.m.
- Jan 31 Antietam Radio Assn ARC (Hagerstown, MD) (ARRL VEC) Pre-registration requested
Contact: Page Pyne, WA3EOP (301) 714-0688 (Day)
- Jan 29 Stafford Area Repeater Assn. (Stafford, VA) (W5YI VEC) Walk-in
Contact: David Boyd, K9MX (703) 659-6241 or Jim McCloud - N4LZJ (703) 786-8012
- Feb 6 Hampton Roads Radio Assn. (Hampton, VA) (W5YI VEC)
Contact: Bill Runyon, N4BDH (804) 487-8611
- Feb 7 D.C.M. ARC (Landover MD) (W5YI VEC) Walk-in
Contact Freddie Battle, NG3G (202) 546-9348 (Days) (301) 773-2898 (Evenings)
- Feb 13 Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Walk-in
Contact: Frank Mackey, N4GUS (703) 455-1510
Mountain ARC (Cumberland, MD) (Mountain VEC) Walk-in
Contact: Leo Patterson, KQ8E (304) 289-3576
Massanutten ARA (Harrisonburg, VA) (ARRL VEC) Walk-in
Contact: Marshal Cooper, N4ZKH (703) 856-8012 (6-9 p.m.)
- Feb 19 Laurel ARC (Laurel, MD) (Laurel VEC) Pre-registration desirable
Contact: John Creel, WB3GXW (301) 572-5124 after 6 p.m.
- Feb 27 Vienna Wireless Society (Vienna, VA) (ARRL VEC) Walk-in
Contact: Ron Natalie, WO2L (703) 620-1727

(Continued)

Volunteer Examiner Cooperative - Continued

- Mar 6 South Peninsula ARC (ARRL VEC)
Contact: Ed Brummer, W4RTZ (804) 898-8031
- Mar 7 D.C.M. ARC (Landover MD) (ARRL VEC) Walk-in
Contact Freddie Battle, NG3G (202) 546-9348 (Days) (301) 773-2898 (Evenings)
- Mar 13 Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Walk-in
Contact: Frank Mackey, N4GUS (703) 455-1510
- Mar 19 Laurel ARC (Laurel, MD) (Laurel VEC) Pre-registration desirable
Contact: John Creel, WB3GXW (301) 572-5124 after 6 p.m.
- Mar 26 Stafford Area Repeater Assn. (Stafford, VA) (W5YI VEC) Walk-in
Contact: David Boyd, K9MX (703) 659-6241 or Jim McCloud - N4LZJ (703) 786-8012
- Apr 3 Middletown VE Team (Middletown, VA) (ARRL VEC) Limited walk-ins
Contact: Walt Quitter, NC4B (703) 869-5241

Williamsburg Area ARC (Williamsburg, VA) (ARRL VEC) Walk-in
Contact: Andrew Swanson, WJ4X (804) 253-2811
- Apr 4 D.C.M. ARC (Landover MD) (W5YI VEC) Walk-in
Contact Freddie Battle, NG3G (202) 546-9348 (Days) (301) 773-2898 (Evenings)
- Apr 10 Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Walk-in
Contact: Frank Mackey, N4GUS (703) 455-1510

Massanutten ARA (Harrisonburg, VA) (ARRL VEC) Walk-in
Contact: Marshal Cooper, N4ZKH (703) 856-8012 (6-9 p.m.)
- Apr 16 Laurel ARC (Laurel, MD) (Laurel VEC) Pre-registration desirable
Contact: John Creel, WB3GXW (301) 572-5124 after 6 p.m.
- May 1 Hampton Roads Radio Assn. (Hampton, VA) (W5YI VEC)
Contact: Bill Runyon, N4BDH (804) 487-8611
- May 2 D.C.M. ARC (Landover MD) (ARRL VEC) Walk-in
Contact Freddie Battle, NG3G (202) 546-9348 (Days) (301) 773-2898 (Evenings)
- May 8 Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Walk-in
Contact: Frank Mackey, N4GUS (703) 455-1510

If you presently have a Technician class license which was acquired prior to March 21 1987, keep a copy of this license available when you decide to upgrade to General class. It will be your responsibility to prove you are grandfathered for Element 3B (General Theory).

NOTE: All examinations require that you submit:
Copy of your current Amateur Radio license (bring original)
Completed FCC Form 610.

Check for appropriate examination fee.

Fees of individual VEC may vary.

FOR ARRL VEC EXAMS, THE COST IS \$5.60

FOR LAUREL VEC EXAMS, ALL TESTS ARE FREE

FOR MOUNTAIN VEC EXAMS, ALL TESTS ARE FREE

FOR W5YI VEC EXAMS, THE COST IS \$5.60

This schedule of examinations appears each month in Auto-Call Magazine
Sponsored by the Foundation for Amateur Radio

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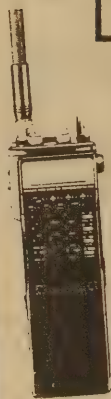
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ALINCO DJ-560T - Our regular sized, full featured twin band 4/70 H/T. Has 40 memories, DSQ, subtone enc/dec included- nothing else to buy! BIG 700 mah battery pak, direct DC, Twin LCD readouts. The DJ-560T is the lowest priced advanced featured twin bander on the U.S. Amateur market. 6.6x2.24x1.2.3-in.

ALINCO DJ-162T - Our best economy handheld for 2M. 20 memories, subtone enc., DSQ, odd splits, Batt. Save, APO, Backlit LCD readout. Receives AM acft., priority, call channel. 5.6x2.14x1.25in. BIG 700 mah battery back, 5W on DC. Call Williams for your DJ-162T today. We'll charge your battery and include mod. instructions.



DJ-162T

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DR-599T

ALINCO DR-599T - Our finest ergonomic designed twin band mobile rig. 45W/35W on 2M & 450 MHz. 40+ memories, cross band repeat, remote control via DSQ equipped H/T. Receives AM aircraft, and W-I-D-E receiver coverage. Remote head with optional EDC-20 kit. The DR-599T is the "premier" hi-tech dual bander on the market today Call Williams and learn more today!



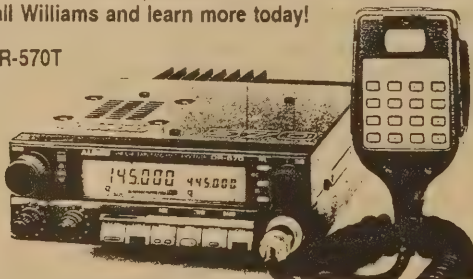
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DR-112T

ALINCO DR-119T - New 2M mobile, with ergonomic design. 50W power, subtone enc/dec included. 14 memories, scan, up/down tun on mike. Great for mobile 2M operation. Spring Loaded mobile bracket.

DR-112T - 45W 2M Mobile transceiver, 14 memories, CTCSS enc/dec, rev. operation. TT

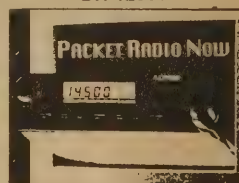
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ALINCO DR-570T - The fully loaded twin band 2/70 mobile transceiver from Alinco. 45/35 watts, cross band repeat, full cross band duplex W-I-D-E receive coverage. 20 Memory channels, subtone encode & decode included, duplexer included. All you need in one package to work 2M and 450 MHz.. Call Williams now!

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DR-1200T



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Digital Mid-Atlantic Radio Council

Meetings: February meeting for election of officers at Andrews AFB
Information: George Stickler - KA3DXX @ KA3DXX - Secretary (410) 551-7657
8249 Quarterfield Road, Severn, MD 21144
UserGroup: Maureen Mulrooney - N3JNE @ KA3RFE (410) 798-4204 in Davidsonville, MD
TechHelp: Dick Wareing - K3AKK @ WB3V (703) 524-1727 in Arlington - afternoon and evenings

On November 19th at the Anne Arundel Radio Club clubhouse in Davidsonville, Maureen Mulrooney - N3JNE, and Tom Dove - K3ORC, gave a presentation entitled "Getting Started in Packet Radio" and used a live, on line packet station. The topics covered included: what you can do with packet, packet equipment needed, hooking it up, making it work, connecting to nodes/BBSes, chat nodes, on line call book, DX spotting network, and the NTS message server.

All 91 attendees were delighted to receive the new DCA Packet Node Guide by Dick Wareing - K3AKK, who attended the presentation, and to receive a map and table of nodes and BBSes. Dave Walters - N3BFO, provided a copy of his Microphone/TNC Switchbox which included a diagram as well as a bill of materials. Walt also provided a copy of "World Wide Packet Pals" by KB6LQV. George Stickler - KA3DXX and Dick Wareing - K3AKK, had made special arrangements for the sale of K4ADL's new "Packet Operation Guide".

A quarterly DMARC meeting was held on November 21st and Doug Miller - N2GTE, gave a presentation on "Help files for GTEPMS-type BBSes." The program was very informative.

First Mid-Atlantic Packet QSO Party. Ready, set, go! At 7 p.m. promptly the Mid-Atlantic QSO party started with CQ messages being sent by eight packeteers scrambling to make their first contacts. The messages scrolled across the screen so fast that a logging program or secretary would have come in handy to keep up the pace. One packeteer turned on his printer to capture his contacts and ended up with one thick ream of EVERYONE'S QSOs.

The ensuing hours brought new contesters to the nodes who joined in the challenge of confirming a contact. The party became more intense as 18-20 packeteers on DCCONV put keyboard, radio and TNC to maximum use. A few used some strategy and moved to side channels. Others linked to PHLNET via ELK2 and two hams found a path through DEWILM. A few brave souls tried making multiple contacts using 2-3 streams.

A fun time was had by all, as revealed by comments made in their logs:

"When it comes to this packet stuff, I've got a lot to learn.

Hope it happens again next year!" ---WA3LKT

"Though my contacts are small, I had fun." ---WB3EOC

"It was great fun! Let's make it an annual event. ---N3BFO

"A lot of fun...and some frustration...pandemonium on DCCONV." ---KB4WKK

"I really like the idea of the Packet Party..look forward to participating next time." ---N3KVQ

"An enjoyable (and interesting) evening." ---N3HIA

"A great idea...you can tell your grandchildren about it." ---N3JNE

"Lots of fun...let's do it again." ---N3MGA

"DCCONV was slower than Christmas." ---WD4IEH

About 40 packeteers joined in the party from various states: MD, VA, DC, PA, NJ and DE for a total of 14 counties: Montgomery, Prince George's, Kent, Anne Arundel, Calvert, Baltimore, Howard, Queen Anne's (in Maryland), Fairfax, Arlington and Prince William (in Virginia); Philadelphia and Delaware (in Pennsylvania) and the District of Columbia.

Congratulations on first place to Paulo - N3MGA, who made 30 contacts in 16 counties for a total of 960 points. He did this on low power and an antenna in his apartment window by skillful use of the packet node network. Certificates will be sent to all participants listed in the logs submitted.

Dick Wareing - K3AKK

T-MARC

The Middle Atlantic FM and Repeater Council

Meetings: T-MARC annual business meeting in the Fall
T-MARC Frequency Coordinating Committee meetings,
4th Monday of the month, various locations

Mailing: Membership matters address to:
T-MARC, 7623 Old Washington Road, Woodbine, MD 21797
Frequency coordination matters address to:
21419 Larch Road, Severn, Maryland 21144

RECENT COORDINATION ACTIVITIES

The sponsor of the Bethesda, MD 444.850 MHz repeater has moved from the area, and vacated his coordination. The "Radio Mountain Repeater Group" applied for and was issued coordination on the frequency, for their proposed new repeater in Vienna, Virginia.

The committee coordinated a proposed new 443.100 MHz repeater to the Lake Ridge Radio Club near Woodbridge, Virginia and a proposed new 907.00/919.00 MHz repeater to the XTRA-104 Radio Club at Waldorf, Maryland.

The Northern Virginia 6 Meter Group's 224.720 MHz repeater was re-coordinated to a new site at Fairfax, Virginia and their 224.42 MHz repeater to a new site on Bull Run Mountain.

A proposed new 442.350 MHz repeater was coordinated to KD4JBY near Martinsburg, West Virginia.

The committee coordinated a proposed new 147.315 MHz repeater to N3JJK in Western Maryland, southwest of Cumberland, and a proposed new 449.225 MHz repeater to the Capitol Area Radio System near Front Royal, Virginia. This latter repeater is planned to be linked to their 442.650 MHz repeater in the District of Columbia, and to the Lake Ridge Radio Club's 443.10 MHz repeater at Dale City, Virginia.

Re-coordination of the MELPAR Radio Club's 444.300 MHz repeater was granted to a new location north of Dulles Airport, Virginia.

At the request of the sponsor, the coordination for the proposed new 447.475 MHz repeater at Hagerstown, Maryland was canceled.

Amateur Radio News Service

Publication Contest

The Amateur Radio News Service is now accepting entries for its national 1992 Publication Contest. The contest is open to all Amateur Radio organizations. Membership in ARNS is not required.

The contest is aimed at identifying and recognizing superior performance in Amateur Radio journalism. To enter your newsletter, submit one copy of any issue published during the period July 1991 through December 1992. For further information and an application, write to

Amateur Radio News Service
11 S. La Salle Street, Suite 2100
Chicago, IL 60603

Metrovision Amateur TV Club

FAST SCAN - COLOR - ATV

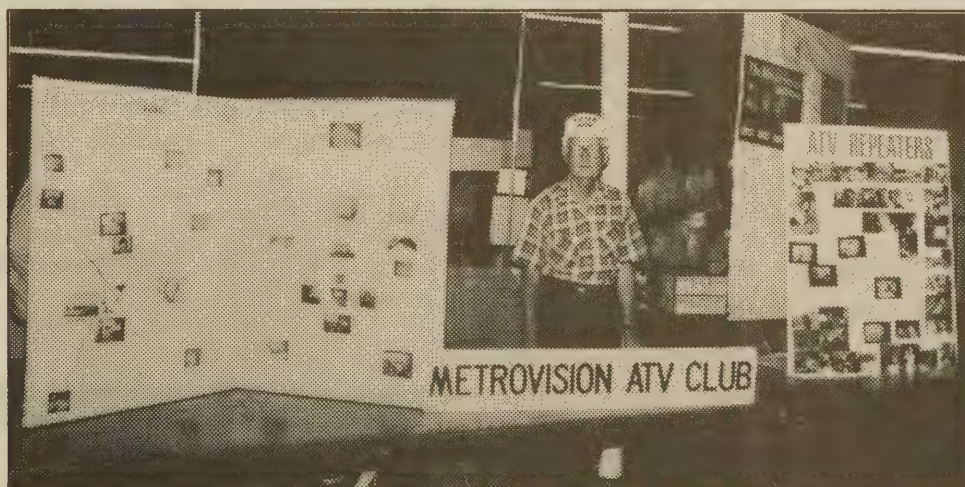
Meetings: Quarterly: Next meeting March 4.
Repeater: WA9GVK/4 (Video and Audio) 425-431 MHz in; 438-444 MHz out
Also accessible on 144.970, simplex, audio.
On-the-air: Sundays at 8:00 p.m.
Mailing: Metrovision, Inc., P.O. Box 8231, Falls Church, VA 22041
Information: Sam - N3GHY (301) 630-3373
Dick - WB3EPX (301) 439-8135

The annual Metrovision dinner/meeting was held on October 4 at Milano's Italian Gardens Restaurant in Camp Springs, Maryland. We had 19 members and friends in attendance. We also had our annual election of new club officers. I will present the slate in the February article.

The first Metrovision club meeting of 1993 will be held at my QTH on March 4th. We encourage everyone to attend so we can plan our year's activities. A separate flyer will be sent out giving directions to this QTH.

Our best regards to Rhonda and Bruce Brown who are expecting their first child.

The photo below shows the setup we had at the Gaithersburg Hamfest. We wish to thank Bob - KC3VO for providing these photos. Next month I will have pictures that were taken at the Metrovision dinner.



On behalf of Metrovision, I want to take this opportunity to wish you all a very happy and prosperous new year.

See you on ATV

Dick - WB3EPX

Maryland-DC QSO Party Winners

The 1992 Maryland - DC QSO Party is now history. The big winners: N3HQB takes Maryland Standard Title. WB3HUP wins Maryland Mobile category for the second time and WA3NAN wins the Club Plaque as a Club Champ for three years running. Top out-of-Maryland honors go to VE2AIL, with an amazing 22 Maryland Counties worked. We appear to have had 188 Maryland signals on the air, a new record under the Antietam Radio Association's sponsorship. The 1993 Party will be August 14-15. Rules are already out.

Goddard Amateur Radio Club

WA3NAN

Meetings: Third Wednesday of the month at 5:00 p.m. Goddard Radio Club Station, Soil Conservation Road, Greenbelt Maryland, across from the Soil Conservation Road gate of the Goddard Space Flight Center. This road may be accessed from either Route 193, Greenbelt Road, or Powder Mill Road.

Repeater: 146.835 MHz

Net: Information net every Thursday evening at 9:00 p.m. local time.

Information: All Amateur Radio operators are welcomed. Net Control is Pat Gossard - N3KGY

Chuck Sommer - N4OSD (301) 286-6790 or
Vikki Gigante - KA3PVS (301) 249-2609

We made it through another year of Shuttle Retransmission thanks to your enthusiastic support and the dedicated efforts of the club volunteers. Next year will be exciting, with SAREX missions in February, March and April. STS-54 is scheduled to fly on January 13; STS-55 on February 18 and STS-56 on March 11. We will be holding another training workshop for shuttle retransmission operators, new and renewed, in February or March. This column will have that announcement next month - so stay tuned.

Thanks for your support of Holidayfest '92! We appreciate it, and it will allow shuttle retransmission and all of our other club activities to continue for another year. Holidayfest '93 will be Sunday, December 5, 1993; so mark your calendars!

Since it is Holidayfest weekend as I am submitting this input, this column will be short and sweet this time. The first mission will be on January 13. The first SAREX mission will be in February! Right now we are in the middle of STS-53, the ninth dedicated DOD mission of the shuttle program. Since it is DOD, we are only giving partial coverage as there is no need to cover the encrypted portion, there will be no normal air-to-ground communications at this time. An interesting experiment on board this mission is the various size metal balls which will be dropped so that different radar sites on earth can accurately calibrate their equipment!

You know, our pool of shuttle retransmission operators are the greatest and I want to take this time to thank them and my assistant directors, Dave Gossard and Jeff Nucciarone, for all their help this year! Finally, a big hug to Pat Gossard - N3KGY for being right hand lady this year, doing mission scheduling and providing snacks to the operators during my

many periods of incapacitation over the past year! Without help like this, shuttle retransmission would be impossible.

We still have coffee mugs, Joe Kasser's Packet Book, and YL World subscription forms. If you would like any of these, contact Chuck at (301) 286-6790 or Vikki at (301) 249-2609. We appreciate your support of the GARC.

John Baugus - N3JME will be holding a General and upgrade class at the Odenton Fire Station in Odenton, Maryland, beginning on January 10. Classes will be held on Sunday afternoons from 1:00 - 4:00 p.m. If you would like to attend or would like further details, contact John at (410) 551-3161.

Happy New Year to all from WA3NAN, the GARC!

Vikki - KA3PVS

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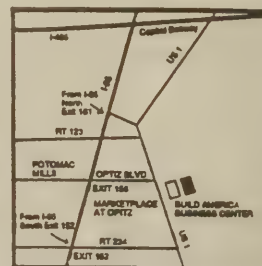
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MADRAS

The Maryland Apple Dumpling Radio Amateur Society Inc.

Meetings: 2nd and 4th Thursdays - 7:00 p.m. NBC Building, 4001 Nebraska Avenue, N.W.
First Saturday - 10:00 a.m. Informal meeting at the clubhouse.
Repeater: 444.100/449.100 MHz 145.45/144.85 MHz
Packet: 145.55 MHz Node 44.96.0.85
BBS: (301) 258-1954
Mailing: P.O. Box 2468, Wheaton, MD 20902
Information: Scott Standiford, W3YTW (301) 589-9321 or BBS
Larry Zeicheck, N3GKZ (301) 984-6112

Schedule of Events

- December 28 MADRAS Holiday dinner meeting, Anita's Mexican Restaurant,
521 Est Maple Avenue, Vienna, Virginia.
Plan on arriving at 7:30 p.m. Call Jean (301) 984-6112 to reserve a seat.
- January 7 The first regular monthly meeting will be held a week early -
at 7:00 p.m. in the WKYS-FM conference room at NBC, 4101 Nebraska Ave. N.W.
The presentation will be on the Inaugural special event station described below.
There will be no second meeting in the month of January.

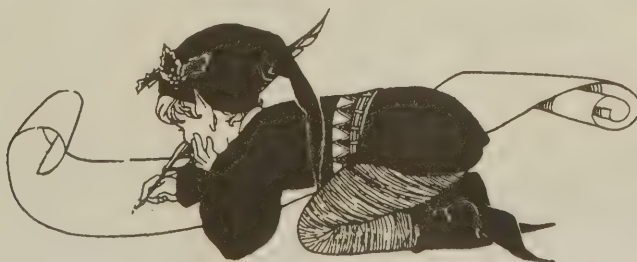
MADRAS will operate W3USS, located at the Russell Senate Office Building on Capitol Hill, as a Special Event station commemorating the inauguration of the 42nd President of the United States, Bill Clinton and Vice President Albert Gore. Operation will take place from Friday January 15th, 2300Z until Monday January 18th, 2300Z. Following are suggested frequencies for working the station:

<u>Phone</u>	<u>CW</u>
1,855 kHz	1,810 kHz
3,905 kHz	3,640 kHz
7,205 kHz	7,050 kHz
14,270 kHz	14,050 kHz
21,345 kHz	21,050 kHz
28,490 kHz	28,050 kHz

The station will also monitor 146.505 MHz throughout the event.
Each evening the station will operate CW in the bottom of the Novice bands;
80-meters 7:00 - 8:00 p.m., 40-meters 10:00 - 11:00 p.m. EST
The operator will adjust his code speed to that of the calling station.
For certificate, send SASE to Box 2468, Wheaton, MD 20902, U.S.A.

Thanks to Tony Young - WA3YLO and Ethel Smith - K4LMB for their excellent presentation on the Foundation for Amateur Radio at the November meeting.

Scott Standiford - W3YTW



Herndon Repeater Group

Meetings: On-the-air meetings every Monday at 9:00 p.m.
Repeater: N4FSC/R 144.71/145.31 MHz
Packet BBS: 145.03 MHz (BBSHRG)
Mailing: Herndon Repeater Group, P.O. Box 5073, Herndon, VA 22070
Training: Michael Weber - WB8RDN (703) 450-2304
Information: Michael Rosati - N4FXP (703) 481-8380

Technical Seminars: The next Herndon Repeater Group Technical Seminar will be held on January 31 and the topic will be Amateur Satellites. The instructor will be Steve - KA1LM, a local Amateur satellite expert and HRG member. Details will be posted on the HRG 145.31 MHz repeater voice announcements and discussed during the Monday 9 p.m. HRG Net meetings on the repeater. Other HRG technical seminars will be listed in the Auto-Call.

will soon be provided. This course is designated for those holding a Technician plus license. Students code speed will be increased from 5 to 13 wpm and General theory lectures provided. Contact Mike - WB8RDN to register.

Future Exams: ARRL/VEC exams will be sponsored by HRG in February, May, August and November of 1993. Specific dates will be listed in Auto-Call when known.



HRG Novice/Tech Class of '92

New Members: HRG welcomes the following new members: Michael - N4NMR + Ruth Bower, Clay - N4GNN, Frances - N4HON, Scott + Kevin Croom, Ron Robins, Robert Gresham, Joshua Wise, Priscilla Durhan, Charles Parsons, Doc - N3NAG, Paul Travis - WB0TFG, Dale Cabaniss - KD4LSL, Mark Torok and Steven Urquiza - N3IDX, George Bratina, David Eisenberg, and Doc Farnham - N3NAG.

General Class Course: HRG will be sponsoring a General Upgrade class beginning in March and running for six weeks on Saturday mornings from 9 a.m. - 12 Noon. Specific dates

Packet: The HRG Packet BBS (BBSHRG) moved from 145.09 to 145.03 MHz on November 19 in concert with the Manassas OVH Node moving to 145.03. Accordingly, the AB4UM-9 digipeater in Herndon (now known as DRN for Dranesville) moved from 09 to 03. Contact Bill - N4WJN or the HRG repeater or listen to the HRG Net for details.

Foxhunt: A second HRG Radio Foxhunt was held on Sunday, November 15, with Craig - N4FSC being the Fox. Within 90 minutes the Fox was found, by Craig - KC6CRD, hiding in the woods near an Elementary School west of Wolf Trap Farm Park.

(Continued on page 33)

Northern Virginia FM Association, Inc.

Meetings:	3 times per year (fall, spring, winter)
Weekly Nets:	NVFMA Net: Every Wed., 8:00 PM local, 146.79 ARES/Public Service Net, Every Sun., 9:00 p.m. local, 146.91 On Air Equipment Clinic, First Wed. 7:30 p.m. local, 146.79 QCWA Chapter #91 Net, Every Sunday 9:00 a.m. local, 146.79 Metro Area Scanner Listener's net, first and third Mon., 7:30 p.m., 146.91
Repeaters:	2-Meter: 146.79- (W4LBL-FFX City) & 146.91- (W4XG-Tysons Corner) 6 Meter: 52.37 Mhz in/ 53.37 Mhz out (KM4OI-Tysons Corner) 440 Mhz: 444.75+ (K4JYF-Tysons Corner) 220 Mhz: 224.50- (WB4YHD-FFX City & X-linked to 146.79) 224.34- (KB4CVL-Tysons Corner) 1272.1 MHz in/ 1292.1 MHz out (K6LEW-Tysons Corner)
Mailing Address:	NVFMA, P.O. BOX 486, McLean VA 22101

The annual business meeting and election of directors will take place on Thursday evening, January 21 at Fairhill Elementary School located at 3001 Chichester Lane in Fairfax, VA at 7:30 p.m. Talkin will be in 146.79- and 224.34-. There are three board positions up for election. These are the positions presently held by Bob - WA4OGH, Steve - WB4YHD and Rick - KB4NRU. If you are interested in running for a board seat please contact Mike - KB4CVL.

The end of November marks the installation of the NVFMA's seventh repeater! The KM4OI six meter repeater (52.37 Mhz in/ 53.37 Mhz out) was installed in Tysons Corner and the initial reports of coverage are outstanding. Much thanks for the outstanding effort to build the repeater goes to Mike - KB4CVL,

Owen - K6LEW and Sam - KM4OI. The moose power of the installation committee is thanked and appreciated.

Congratulations to Joe - W4LBL on getting his LiTZ alert circuit for use with the RC-85 controller published in the December 1992 QST Hints and Kinks section. The power amplifier of the 146.79 repeater had some problems in November, but should be back on line in early December.

The NVFMA Board of Directors, at their November meeting, voted to purchase some sophisticated test equipment to keep the repeaters in top operating condition.

Dan - KC4OCG

Herndon Repeater Group - Continued

Holiday Party: Thanks to HRG Board of Director member Craig Kendall - WA3RGH for hosting the 1992 HRG Holiday Party at his home in Herndon. There was an excellent turnout from members and non-members at the December 5 function. A shiny new Realistic HTX 202 2-meter handheld was won by Duane - K4UW. HRG is raising funds for HRG Educational Activities (all are offered free to the public) and support from everyone was appreciated.

Net: Don't forget the HRG on-the-air meeting is held every Monday evening at 9 p.m. on the Herndon 145.31 MHz repeater. The net is open to everyone. Our thanks to recent Net Control

volunteers Lee Ann - KD4GSR, Kay - KD4GSZ, Barbara - KA8FUI, Ann - KD4GSS, Jodi - KD4GSP and Tom - WB8ZRP. Would you like to take a turn at Net Control?

Exam Results: HRG congratulates the people (many from the recent HRG Novice/Technician class which concluded November 14) for upgrding during the November 21 ARRL/VEC exam session. In all, 70 exam elements were administered in just over three hours.

HRG thanks the Volunteer Examiners who conducted the session and members who assisted.

Mike Weber - WB8RDN

Prince George's Wireless Assn.

Meetings: First Working Tuesday of each month, 7:30 p.m., American
Red Cross Service Building, 6206 Belcrest Road, Hyattsville, MD 20782
Club Station: K3CEZ
Mailing: 4109 Kennedy Street, Hyattsville, MD 20781
Information: Frank Holton - WA3ZMW (301) 927-1245

Prince George's Wireless Association held its regular monthly meeting on December 1st. A total of 14 were in attendance, including two new members and two prospective new members. The two newest members are Luis Roman - N8SIF and Juan Roman - N3LSW. The two are brothers and both are graduate engineers. The two prospective members, Sarah Irvine and Howard Sanner are working for their first Amateur license.

This meeting, in keeping with the holiday mood, was our annual Christmas gathering. Frank - WA3ZMW and Dan - W3SWD set the theme with everyone bringing a gift, for another member, from their electronic treasure chest at home. The members also brought refreshments. Frank - WA3ZMW baked his own special recipe of cup cakes and brought his new TV with the built in VCR and a tape of the introduction to Amateur Radio.

Charles - KA3COT is the club's new treasurer. Charles volunteered to take over for Louis - W3IHL who had to step down because of

a physical condition which made it impossible for him to continue. We greatly appreciate Charles' volunteering for the position.

Dues are now payable for the upcoming year. Our thanks to many members at the meeting who renewed for 1993. PGWA is looking forward to an inspiring and fun-filled year for Amateur Radio. We have new members coming in who can help in any Emergency Communications, Special Events and, last but not least, a new and exciting Field Day next year.

Once again, a hearty "Welcome" to our new members, and thanks to all who helped to make our Christmas meeting a happy and fun-filled time.

Happy Holidays to all, and especially to those of the Foundation For Amateur Radio and the staff of Auto-Call magazine.

Make those good resolutions for the new year now. 73 to all and to all a Good Night.

Ken Easton - N3HLY

Washington Area IBM Amateur Radio Club

Meetings: First Tuesday of the month that is a work day.
Building 182, Room 3C51 (The Radio Shack)
Chat Net: Second Wednesday of each month, 5:00 p.m. 145.520
Information: Erinn - N3HSA (301) 972-1771
The Radio Room (301) 240-6877

A number of members of the IBM ARC have recently taken "early retirements." In spite of this, however, the club is surviving well and has just elected new officers for 1993.

President: Erinn Tordella - N3HSA
Vice Pres: Frank Pinkl - WA3YHE
Sec/Treas: Bill Strider - KX8I

The newest member of the club is Bob Hulton - N1NMA, who recently transferred down from IBM Stamford, CT.

Erinn - N3HSA

Montgomery Amateur Radio Club

Meetings:	1st and 3rd Wednesdays of each month at 7:30 p.m. Executive Office Bldg. Montgomery Co. Government Center, 101 Monroe St., Rockville, MD. Park underground on G-2.
Repeater:	146.355 in (Rockville & Germantown)/146.955 out (Rockville)
Mailing:	M.A.R.C., P.O. Box 611, Gaithersburg, Maryland 20877-0611
Information:	Jeff Horlick - KZ3F (301)258-0112; Steve Todd - K2IYQ (301)253-4172
Training:	Jane Rosenthal - KA3YWU (301) 762-6262; Dick Hayman - K3DML 340-8251

With 1993 about to make its grand entrance, the Montgomery Amateur Radio Club (M.A.R.C.) looks forward to continued growth, diversity, and program prosperity. Before consigning 1992 to the dustbin of Amateur history, your reporter would like to round out the year by reciting a virtual litany of recent M.A.R.C.-related activities. With regard to the Club's annual elections, the following members were elected to their respective offices:

President:	Al - NW2M
Vice Pres:	Jim - N3KTV
Secretary:	Erinn - N3HSA
Treasurer:	John - KA3QFL (re-elected)
Directors at Large (3):	
	Jeff - KZ3F (re-elected)
	Stan - W3INK
	Mark - N4EOC (re-elected)

Congratulations to both the "incumbents" and the "new hires"! M.A.R.C.'s 300+ membership base is 300% behind you! In fact, the best news of all is that 60 "new" Amateurs were added to the Club in 1992!

A round of applause, please, for Jane - KA3YWU/AE and Ron - N3KQY who coordinated M.A.R.C.'s very successful Novice/Technician Training Class which started September 22 with 41 participants and which culminated November 17 on a high-(pass) note. According to Pierre - KB3ZM (head of M.A.R.C.'s Volunteer Examiners), the following results were achieved (among 24 candidates sitting for exams): Elements passed include: (1) occurrence of Element 1A - 5 w.p.m. code; (2) occurrences of Element 1B - 13 w.p.m. code; (7) occurrences of Element 2 - Novice Theory; and (9) occurrences of Element 3A - Technician Theory. License upgrades include (2) persons who earned the "Code-less" flavor of Technician license; (8) persons who earned the "Code Plus" flavor of Technician License; and (1) person who earned a General Class Amateur Radio License.

The indispensable VEs who participated and supported KB3ZM in this examination process include: KX3U - Walt; K2IYQ - Steve; NW3S - Mark; W3GIS - Ron; KZ3F - Jeff; W3QF - John; KK3A - Tom; and NK3I - Bob. Likewise, this is the appropriate Club forum to extend M.A.R.C.'s warmest gratitude to ALL of the following Club Volunteers who worked diligently week after week to crisply "roll out" the class. On the Theory side, Ken - KD3VK, Alan - N3EHD, Al - NW2M, Al - KN3U, Steve - K2IYQ, I.J. - K9ICF, Don - KA3CTR, and Jeff - KZ3F demonstrated their commitment to "shared responsibility" by teaching individual modules from the Instructor's Guide of *TUNE IN THE WORLD*.

On the "dreaded" 5 wpm CW side, Steve - K2IYQ and Paul - KA3ORZ master-minded the "hands-on" instruction--even producing and distributing "practice" audio tapes to the participants!

Last (but never least), "hats off" to Dio - KE3DS and Bob - N3JLN, each of whom went out of his way to act as "cheerleader" and give a customized "pep talk" to prospective Radio Amateurs on the opening night of the class. Based on the overall success of this most recent M.A.R.C. training course, a potential follow-up "license upgrade" course is being considered for the Spring of '93. Anyone in the Club interested at this time in tentatively supporting this proposed class? (If so, please contact Jane, Ron, or the Reporter.)

Lest we forget the Club's RACES' initiatives, it is noteworthy to mention that a "makeup" photo ID session was held on November 19 in the Montgomery County Disaster Operations Room (D.O.R.). This 3-hour RACES application/identification session was efficiently organized and smoothly implemented by Rob - N3HQX. (Take a bow for your efforts.)

Continued

Vienna Wireless Society

25 Years of Public Service

Meetings:	2nd and 4th Fridays of each month, 7:30 PM Vienna Community Center, 120 Cherry Street, Vienna, VA
Repeaters:	K4HTA/R 146.085 in/146.685 out, 222.340 in/223.940 out, 448.250 in/443.250 out, 443.375 in/448.375 out
Nets:	Vienna Emergency Net every Thursday at 7:30 p.m. 146.085/146.685. Pow Wow Net every night except meetings at 9:00 PM on 28.444 Slow Speed Code every night except meetings at 8:30 p.m. 28.390 MHz
Information:	Margy Patterson - N2JRG (703) 620-1727
Training Classes:	Paul Wilkins - AB4CY (703) 560-2779
Mailing Address:	P.O. Box 418, Vienna, VA 22183

The November meeting of the Vienna Wireless Society brought us the annual elections for the Board of Directors. It was a very close race and our two new Board members are Mark Murray - AB4WB and Mel Woods - KN4ZT. The Board then met and appointed the officers. Mark Murray, AB4WB is the President for 1993. The other officers are Vice President, John Markey - W2AAW, Secretary, Pat Crosby - KA4FHK. Ross Patterson - N4YYH will remain as Treasurer.

The December meeting of the VWS is budget voting and the Holiday Party. So ends another year for the VWS. I've had a good year as President and am looking forward to next year.

We have a good slate of officers and good board members to run the club this year and I will enjoy watching them from the sidelines.

The focus in the next two months will be Winterfest™. We are already expecting a wonderful event as usual. Planning is in full swing with chairpeople already recruiting teams to man the gates and get frostbite with the tailgaters. Maybe we will have the same 50 degree weather as last year.

Remember VWS meetings are open to anyone!

SEE YOU AT WINTERFEST™!!

Margy - N2JRG

Montgomery Amateur Radio Club - Continued

Finally, 1992 was very busy for M.A.R.C. in terms of Public Service visibility. In November alone, the Club supported two events for the purpose of "health and welfare" radio communications. This time the accolades go to Bob - NK3I (who chaired BOTH events in addition to acting as Net Control Operator) and his crack team(s) of Volunteers, to wit: for the November 1 Rockville 10K early morning run, Bob was supported by: Jeff - N3MZC, John - N3HBX, Bill - W3WON, Jane - KA3YWU/AE, John - KA3QFL, John - N3NFY, Bob - N3LDI, Jon - N3LIM, Tom - AA3AC, Josh - KE3EV, Tom - N3LGF, Bob - NK3I, WA3ZOR - Dave, Dick - WB3AAO (2nd Net Operator) and Erinn - N3HSA. For the "Mothers Against Drunk Driving" (M.A.D.D) 8K Run on November 22 (coincidentally the anniversary of JFK's Assassination), Net Control Operator NK3I was supported by: Craig - N3NKD, Mark - N4EOC, Bill - W3WON, Rob - N3HQX, Dave - WA3ZOR, and Erinn - N3HSA....

Best Wishes for the New Year and throughout 1993 to the Staff of AUTO-CALL, the M.A.R.C. family--and THEIR families. As always, be sure to remain "clear and listening on frequency" to 146.955 MHz!

Erinn - N3HSA

AMSAT

Radio Amateur Satellite Corporation

Meetings: Semi-annual - January and July.
Local Net: Sunday at 9:00 p.m. on 146.835 MHz FM, W3ZM/R, Greenbelt, MD
Information: Pat Kilroy - WD8LAQ 301-249-3396 or on packet WD8LAQ @ WB3V.MD

Are you interested in learning first hand about Orbiting Satellites Carrying Amateur Radio? Would you enjoy seeing what things local hams have built at home for their satellite station? Do you want to see an OSCAR station in action? If so, then you are invited to the next gathering of the local AMSAT group! Drop by on Sunday, January 17 at 2:00 p.m. at the Goddard Visitor Center auditorium in Greenbelt, MD. The format of this meeting will be a "show and tell" series of demonstrations and stories. An R.S.V.P. is preferred, but not essential, except for any one who would like to show or tell. Contact me about this event by telephone, packet radio, or on the weekly AMSAT net on 2-meter FM, as shown in the masthead above. Be sure to fill out a local AMSAT survey sheet and leave either an SASE or your packet radio address for future announcements. Bring a friend!

Last month at the "HolidayFest 92" Ham Radio and Computer Fair at the Prince Georges County Community College, we had more than the traditional AMSAT table as staffed by our AMSAT Area Coordinator Howard Ziserman-WA3GOV. Steve Greene-KA1LM, Dan Schultz-N8FGV, Walt Daniel-N3KVQ and I set up a tent on the inner mall next to our modest but plainly visible OSCAR antennas. The array was mounted on a seven-foot tall wood 2x4 and guyed with some rope. We made contacts on AO-13 using a couple of mobile radios and two deep-cycle 12-volt batteries. Our purpose was to share the fun of satellite communications and to demonstrate a simple OSCAR station. One new friend thanked us, saying that previously his only experiences in space communications were through the pages of QST magazines. In turn, we thank the HolidayFest planning committee for their continued support of, and identification with, such educational forums!

I spoke on my 2-meter handheld with a fella located in the vast northwest area of our country -- AND YOU CAN TOO! I made a 2-way QSO with Joe-K7LDN of Redmond,

Washington using an experimental real-time OSCAR-13 gateway set up by local AMSAT member Tim - N3JON of Catonsville, MD. Tim linked the AO-13 signals from his home station to the AlexBellRA repeater, N3AGB/R, on 147.360 in Washington, D.C. through its port on six meters. We accomplished this one Sunday night in late November after the regular AMSAT net. Pending the consent of the N3AGB/R group, Tim would like to continue future gateway experiments. Check in to the Washington, D.C. area AMSAT net on Sunday evening to find out when you can try for your first handheld OSCAR contact!

Soon we will pick a place that ham radio operators might meet informally on a monthly basis for lunch to munch and chat satellites. The place must be conducive for a group of up to maybe a dozen or so. The location should be conveniently off the Capital Beltway to accommodate those who may wish to drive from a distance on occasion. Let's try for one location, but we may end up with one restaurant for Maryland and one for Northern Virginia, depending on interest shown. Forward your suggestions to me and I will check for common ground.

See you on January 17th!

Pat Kilroy - WD8LAQ



Sterling Park Amateur Radio Club

Meetings: Third Monday of the month except December, July and August
At Sterling Community Center Annex, Church Road (Rt. 625)
near Route 28, Sterling, Virginia

Mailing: Box 599, Sterling, VA 22170

Information: Dick Maylott - W4LMJ (703) 430-3842 or
Joe D'Angelo - WB2SAI (703) 444-1252

My apologies to Auto-Call readers who have missed hearing from the Sterling Park ARC for the past few months. Our absence has not been from lack of club activity, but rather due to too much activity by your correspondent who simply didn't get any columns written.

Club activities have been concentrated in two areas - the Virginia State QSO Party and handling QSL's for the STS-45 SAREX mission. Red Free - W3FTG, has assumed the chairmanship of the Virginia State QSO Party this year, after serving last year ASCO-chairman with Forrest Snyder - N4UTY. Rules will stay the same, but a few plaques that have been reserved for Virginia stations are open to out-of-state competition as well. We'll have the full input to everyone well in time for the third weekend in March.

Our November meeting was a work session to get out a bunch of QSL cards for the STS-45 mission, which we volunteered to handle. We finally were able to get transcripts and computer disks made from the tapes which the astronauts recorded while the SAREX QSO's were in progress. A couple of lap tops provided by Mark Johnson - WS3N, and yours truly made the searching for calls and partials much easier. Others worked from paper transcripts or handled SWL QSL requests. In addition to

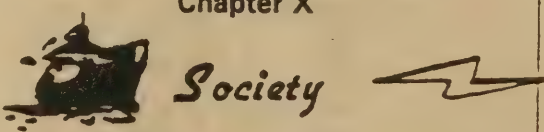
those we completed during the work session, a good half dozen of us went home with listings or computer disks plus a bundle of incoming cards and blank QSL's to work on in our spare time. By the time this gets to print, we will have completed and mailed nearly 2000 SWL and two-way QSO cards.

On a more personal note, Forrest - N4UTY, and I, upgraded to Extra Class at the VE session sponsored by the Herndon Repeater Group on November 21. My congratulations to our neighboring organization for conducting a well organized and run testing session. I am now also sporting an A3S at 37 feet with a 6-meter beam above it, and want to thank Paul - WB0TFG, Bill - KC4ATU, and Allan - W1AEL, for their assistance in the final tower raising process. The tower and antenna preparation phase, plus studying for the Extra consumed more of my recent spare time than I expected, but I can now reap the benefits.

We are looking forward to a lot of interesting meetings this spring. Hams in the Sterling-Reston-Herndon area are always welcome. The time and place is in the banner above. You can frequently find some of us on the 146.715 Sterling repeater as well.

Dick, W4LMJ

Chapter X



Society

of Wireless Pioneers

THE INTERNATIONAL ORGANIZATION
OF PROFESSIONAL RADIO TELEGRAPHERS

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JOHN T. NUTTMANN, CPA

Mt. Vernon Amateur Radio Club

Meetings: Second Thursday of Each Month, 7:30 p.m.
Mt. Vernon Governmental Center, 2511 Parkers Ln., Alexandria
Repeater: WD4PDP/R 146.055 input 146.655 output
Nets: Every Tuesday at 8:00 pm (0100 UTC Wednesday's)
Starts on 2-meter then moves to 10-meter on 28.405
Information: John - KI4HK (703) 780-2882 or Mike - KE4ER (703) 780-8028
Training Classes: John Forrest - WZ4A (703) 971-3905
Mailing Address: c/o Frank Mackey - N4GUS, 8072 Athena St., Springfield, VA 22153

We have Frank - N4GUS to THANK for our October program - a video tape called Gateways to 21st Century provided by the Goddard ARC. Thanks, Frank - it was very interesting. November brought Nancy Draheim - NK4U to tell us about the Sterling Park (outgoing) QSL Bureau and John Kanode - N4MM to tell us all the latest news from the ARRL. THANK YOU both for giving us your time on the 12th!

We want to THANK lots of people for visiting our meetings. In October we saw Bob Lake - KF2CQ, Bruce Wilder - KA3PQU, James Dutton, Chris Harrison, Jack Ferratt - KD4SHX, Larry Watson, and Luis O. Villalobos (Luis - KC4NUE's father). In November, Bruce Wilder - KA3PQU (again!), Julie Abrams, Paul Kravetz, Jim Durbin - W8UFW, Chris Harrison (again!), and Glen Jackson - KD4TZG visited. We're glad you came and hope you can come again.

WELCOME TO OUR NEW MEMBERS

Nathan Shaifer, Maury Shumaker - W0HYB, Mike Dettinger - KD4TNS, George Garrott (waiting for call), Joseph Salemi (waiting for call), and William Smith - KA3MFN. We're real pleased you decided to join our club.

TRAINING CLASSES BEGIN AGAIN

The Novice/Technician class is drawing to a successful close - which means it's time for the General/Advanced/Extra class to begin! The new class is scheduled to begin January 25 at the Seminary, but it may possibly be moved to a new location. For details, call John - WZ4A at (703-971-3905).

YES, MVARC IS STILL GIVING EXAMS!

Somehow, we fell off the regular schedule, but we are still testing on the second Saturday of every month at Lee District Park in Fairfax County. There is no charge and walk-in's are welcome. Pre-registration (and information)

is available by calling Frank - N4GUS at (703) 455-1510. Anyone interested in being a VE or helping at the exams (you don't have to be a VE to help out) should also get in touch with Frank.

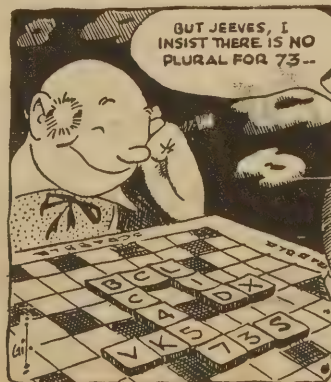
MANY THANKS to all who helped at the Marine Corps Marathon. I'm sorry I don't have a specific list of names and calls, but be assured we are very grateful for your help. It's easy to become a helper - just give Steve - WB4EEA a call (703-780-7248) and let him know you are interested.

*** SPECIAL EVENT *** MARK YOUR CALENDARS

On February 20 and 21, MVARC will have a Special Event station on the Mt. Vernon Estate in commemoration of George Washington's birthday. Plans are still being made, but the date and location is fixed. We will be finalizing plans at our January and February meetings (and all are welcome to come to the meetings). Contact Kirk - KA4PXX (703-780-6092) if you want details or can help out.

Hope to see you January 14th at the January meeting.

Marci - KM4VM



QST, OCTOBER 1994
QUARTER CENTURY WIRELESS ASSOCIATION, INC.

Anne Arundel Radio Club

Meetings: First and Third Thursdays at 8:00 p.m.
Davidsonville Family Recreation Center, Queen Anne Bridge &
Wayson Roads off Md. Rt 214 near Annapolis
On-the-Air: Thursdays when there is no club meeting, 2030 Local on 147.705/105
Tuesdays at 2030 Local time on 28.410
Address: P.O. Box 308, Davidsonville, MD 21035
Information: Margaret (Holly) Bevan - N3BMB (301) 923-0229

The Anne Arundel Radio Club officers for 1993 were elected at the December 3rd meeting. They are:

President: Bob Israel - WC3I
Vice Pres: Dick McKelvie - N3MNG
Secretary: Anna Walter - N3JYU
Treasurer: Bob Baltz - N3MNT
Directors: Doug Sweely - N2IBM
Oscar Ramsey - NV3G
Lew Hendrixson - N3IJK

At the November 19th meeting, Tom Dove - K3ORC and Maureen Mulrooney - N3JNE presented *An Introduction to Packet Radio* to a packed clubhouse. They came equipped with visual aids, helpful handouts and a "live" packet on which they demonstrated just how to connect to individuals, packet bulletin board systems (BBSs) and nodes. The record audience seemed most appreciative.

At the Anne Arundel ARC clubhouse on November 14th, Bob Israel - WC3I, Oscar Ramsey - NV3G and Charlie Tiemeyer - W3RMD gave 22 tests to 11 persons. Fourteen passed and there were six upgrades. Dean Alley - NS3V was the coordinator, Herman Turner - WK3P and Gordon Davids - WJ3K graded; Dave Walter - N3BFO served as runner, and Lois Turner - KA3VVQ and Bettye Tiemeyer - K3VRZ were the registrars.

Congratulations to Sherrill Bower - N3ITM, who upgraded to General Class. New call signs included Bill McConnell - AA3CB (formerly N3KPG), Ted Raab - KD4ROX (formerly KC4ZZT), and Stephen Payer - WZ3R (formerly KE3AN).

Holly - N3BMB

Shenandoah Valley Amateur Radio Club

Meetings: First and third Fridays of each month at 7:30 p.m.
The SVARC clubhouse at 2921 Grace Street in Winchester, VA.
Repeater: 146.22 in 146.82 out
Net: Shenandoah Valley Emergency Net, 7:15 p.m. daily, 146.22/82
Mailing Address: P.O. Box 139, Winchester, VA 22601
Information: Mike Baptist - KD4EPZ (703) 772-6186

The meeting of December 4 was well attended. The 1993 budget was presented and approved. John - N4MM gave a report on FCC and ARRL activities. Guy - W4PSJ conducted a training class recently. He also led a VE team and gave examinations. We will be hearing some new calls in a few weeks, thanks to Guy. Cliff - KD4TZ is home after a stay in the Washington Medical Center.

Another charter member of SVARC has become a Silent Key: Ray Bowers - WA6JNY passed away at his home in California on November 23. We knew Ray as W4BCT when he became a Charter member of SVARC. In fact, the first meeting of SVARC was held in Ray's home in Reliance, Virginia in 1948. The charter members still with us are - Neil - W4LOG, Kenny - W4TCK, George - W4UGX, Warren - W4OHM, Mike - W4ACC, John - W4KX and Brad - W4EBH.

Walt - WA4HVU

Laurel Amateur Radio Club

A Volunteer Examiner Coordinator

Meetings:	4th Wednesday of each month (except November & December) 8:00 p.m. at Harrison-Beard Building on corner of 9th and Montgomery, Laurel, Maryland.
Social:	2nd Wednesday of each month except December. (Call for directions.)
Nets:	1st & 3rd & 5th Wednesdays, 8:30 p.m. on 147.225 +600, no tones.
Mail:	P.O. Box 3039, Laurel, MD 20709-0039
Exams:	3rd Saturday of each month, 10:00 a.m. at Maryland Radio Center.
Information:	Jim - W13N (301) 725-6829 or Pud - W3DQI at (301) 498-6293

The Laurel Amateur Radio Club is active in the Laurel area, which we think generally includes most of Northern PG County, as well as the surrounding area in Howard, Montgomery, and Anne Arundel Counties. All Amateurs in "our neighborhood" are welcome to participate in LARC activities.

The nominations committee proposed that the current officers be nominated for next year. Surprise, surprise, there were no nominations from the floor and everyone was elected unanimously. I would like to thank the following for continuing to serve: Howard-K3IOG as vice president, Mary Ellen-KD3ZH as secretary, Pud-W3DQI as treasurer, and Joe-KA3UZI as our FAR representative. I am continuing as president.

We are now holding our on-the-air get togethers on the odd Wednesdays on the 147.225 repeater. We'll be doing this through January to see if more members can check in. So far there have been several new voices heard and check-ins are running around twenty - up from our usual 12-15. John Creel-WB3GXW has kindly consented to turn off the tone so those without that feature can make use of the repeater.

One of our ongoing projects is the updating of our by-laws. They are almost ten years old and I thought some of the language needed to be made more current and inclusive. We have been through two revisions to date and will finish working on them early next year. It has been very interesting to hear some of the suggested changes from the membership, in addition to the proposals by our hard-working committee.

Pud-W3DQI and Kevin-W3DAD deserve kudos for their organization and execution of our club's participation in the ARRL Phone Sweepstakes week-end. We had about a dozen members actually work the station and do the logging, and another half dozen stop by for

moral support. We used Pud's equipment and Kevin's computer for logging, and went key-down at 1600L to 0200 and again from 0700 to 2100. Unfortunately, we didn't make a clean sweep, nailing down only 75 of the 77 required sections; however, we had a great time trying. Our club shack is functional with a TH-6 beam for 20-15-10, and a G5RV for 80-40. All this is mounted about 35 feet off the ground on the roof of the Harrison-Beard building.

The club shack has been useful for showing our Novice/Tech class how equipment works, since we can drop a feedline from the HF or VHF antennas down to the meeting room where we teach the class. I'm looking forward to using the antennas during our regular meetings next year for show and tell for the digital modes and ATV.

Speaking of classes, Pud-W3DQI and Russ-N3AUQ will be holding a class for the General Class license, beginning the third Monday in February. Classes will be held at 1900L in the Harrison-Beard building. They should run from 8-10 weeks and will not include code. For more information call Pud.

Finally, the membership is looking forward to our annual Holiday Banquet at the Bay and Surf Restaurant on Route 1 in Laurel. Our guest speaker will be I.J. Hudson-K9ICF, a reporter for Channel 4 News. The festivities begin at 1800L on December 20.

I hope all our readers have a safe and happy holiday season.

Jim - W13N

Arlington Amateur Radio Club

Meetings: Third Tuesday of each month at 7:30 p.m.
Arlington Red Cross Chapter House, 4333 Arlington Blvd. (Rte. 50)
Net: Tuesdays (except meeting nights) at 7:30 p.m. on 144.87/145.47 MHz FM
Info: Robert D. Milligan - KI4MB, (703) 533-0650

AMRAD Wows Us at November Meeting.

At the November 17 meeting, Dave Rogers - N4JGQ and Sandy Sanders - WB5MMB of AMRAD presented an exceptionally interesting program on building and operating 10-GHz gear—complete with show, tell, and demo. Dave did most of the talking. He said 10-GHz was increasing in popularity among hams because telcos were abandoning terrestrial microwave relays for satellite links, thereby making used 10-GHz "bricks" (oscillator/multiplier chain/mixer/amplifier units) available at low prices. These are popular for weak-signal SSB work.

X-band FM is even simpler and cheaper: a full-duplex transceiver can be built around a Gunnplexer: a Gunn diode oscillator and Schottky diode mixer in a waveguide stub. Units removed from service as motion-detectors for door-openers can be had for \$10 - \$35. One needs a regulated variable 6-10V power supply, a voltmeter, a 10-100 mW audio amplifier to frequency-modulate the Gunn diode, and an \$8.88 wideband FM broadcast receiver to serve as the IF strip. Dave supplied a schematic showing how to hook these up with a resistor and two capacitors to form a complete setup. Some Gunnplexers come equipped with a small horn antenna; for more gain one can use a small dish.

Dave described some of AMRAD's mountain-topping DXpeditions, and Dave and Sandy demonstrated a full-duplex link right in front of us; some of us made our first X-band contacts! Thanks to Dave and Sandy for a superb program, and our thanks to AB4YP for inviting them.

Welcome to Cody Moten - KD4TNU, who joined at the November meeting.

Dennis - W4PWF Elected Vice Director of ARRL Roanoke Division.

The ARRL Committee of Tellers for the election of Directors and Vice Directors for the 1993 through 1994 term met at ARRL Headquarters November 20 to count ballots. One result, reported by ARRL Bulletin ARLB108, was the election of Dennis Bodson - W4PWF, Vice President of the Arlington ARC, to the office of Vice Director of the ARRL's Roanoke Division. Congratulations, Dennis!

December Meeting Featured Elections and Party. By this time you read this, club officers for 1993 will have been elected, and the club will have celebrated the end of a good year, and a new beginning, with a seasonal party. Happy holidays to you all, Auto-Call readers! Watch this space in '93.

Mike - NW3V

1993 Annual Spring Banquet

Sponsored jointly by
The Foundation for Amateur Radio & the Quarter Century Wireless Assn.
Greenbelt Marriott Hotel
Saturday, May 8

This is an area-wide activity, open to ALL Amateurs
Mark your calendar right now.

"Ole Virginia Hams" Amateur Radio Club

Meetings: Third Monday of each month, 8:00 p.m.
Northern Virginia Coop Building
10323 Lomond Drive, Manassas, Virginia

Repeaters: Voice: WA4FPM 146.97 and 224.66
Packet Node: 145.030 and 223.540 (OVH)
Packet BBS: 145.030 (BBSHRG)

Net: Each Thursday, 8:00 p.m., 146.97 and 224.66

Information: Harry Vorhauer - W4PVA 703-368-6050
Steve Frick - N4OGR 703-361-0008

Mail Address: Ole Virginia Hams ARC, PO Box 1255, Manassas, VA 22110

The Ole Virginia Hams packet node is now operational at its new site on 145.030 and 223.540. The old digipeaters are now gone, the TNC's are being used for the node. The Prince William County Service Authority has allowed OVH to use one of their water tank locations for our node site. The node consists of the following: two AEA PK-88 TNC's, two Transceivers, and an IBM 12 MHZ 286 computer running G8BPQ's Net/Rom software. At the moment the 220 Mhz radio is a loaner from KM4UH. The original 220 Mhz radio is resting until the new crystals arrive. The antennas are a 220 MHz Ringo Ranger and a Diamond F-23A 3-element 5/8 wave vertical for 2-meters. Both antennas are mounted on top of a county water tank located off Route 234 in the Manassas area. The initial installation of the antennas, 1/2 inch heliax, and site preparation jobs such as digging a trench for conduit etc, was done on Oct 25th. Jim - WA2QEJ handled the equipment mounting and cabling in a rack provided by Art - W1CRO. On November 8th the equipment rack was installed and placed on line. Since then there have been many growing pains, primarily with the software; however our sysop Mike - WV3H is working on it. The members involved with the installation and/or preparations were: WV3H packet committee chair, KD4DEG, KI4RO, W4HJL, NV3S, NS5N, KD4KBX, KD4RHC, WD4OJY, N3MWJ, and KM4UH. Apologies are extended in case we've forgotten anyone.

One of the community service efforts that OVH provides is the annual award of scholarships. Four scholarships were awarded for 1992 and the award recipients are as follows:
Jeffrey A. Geisler - \$2000.00, Lawrence A. Weyer III - \$1000.00, Eric Neiderer - \$500.00, and John Cain - \$500.00.

OVH held a testing session on Nov 14 at Northern Va. Community College Manassas campus. The session was organized by Harry - W4PVA. The session had a small turnout but was still a successful venture resulting in 1 new Novice, 5 new Technicians, 1 new Tech Plus, 1 upgrade to General, and 1 upgrade to Advanced. It is worth noting OVH funds were provided for the rental of the class room in order to conduct the testing session. Thank you's are offered to the volunteer examiners who helped out with the session. OVH is planning to hold another exam session in June. Sat June 5 and Sat June 12 have been suggested as possible dates for the exam session. (The OVH hamfest is Sun June 6). The date will be decided at a later time. Testing session questions can be directed to Harry - W4PVA.

On Dec 5th, the Ole Virginia Hams once again supported the Manassas Christmas parade. Dick - WD4AZG organized the OVH volunteers and believes that this year everything went exceptionally well. The following hams took part in this annual club event:
Art - W1CRO (net control), Woody - KD4DEG, Ron - NV3S, Joe - AB4QV, Bernice - KA4SCA, Lisa - KA4RKJ, Steve - N4OGR, Bonnie - N4QPB, Jim - KC4ZPN, Tom - KC4VMV, Butch - W4HJL, Mary Lu - KB4EFP, Harry - W4PVA, Jim - KD4AUJ, John - N4YOB, Allan - WA2GTT, Mike - WA4EJY, and Randy - KA4UFF.

**DON'T FORGET TO MARK YOUR CALENDAR
MANASSAS HAMFEST JUNE 6, 1993**

Alan-KD4KBX

Summit Amateur Radio Association

Meetings: First Thursday of the month.
Next Meeting: March 4th, 7:30 p.m. at the Bob's Big Boy on Merritt Blvd. in Dundalk, East side of Baltimore, Maryland.
Address: S.A.R.A. , P.O.Box 18404 Baltimore, MD. 21237
Repeaters: Club Owned; 224.64 MHz (WA3Z),
Club affiliated: N3HIA 224.64 & 449.075 Mhz
KS3I 224.68 Mhz., N3DRB 449.475 Mhz.
Hamfests: Carroll County Hamfest & Computer Show - July 11

Greetings to all readers of Auto-Call. Our club voted sometime ago to join the FAR and start writing a monthly column to inform the general ham population on our activities. As many of you may only have a passing knowledge of our group through our Hamfest, this column will serve as a introduction of sorts.

SARA was formed on July 27, 1986 by eight former members of the BRATS. Since then, we have grown into the largest 220 MHz club in Maryland, having as of this writing about 60 on the roster. SARA was founded on the principals of "one man, one vote," and letting EVERY club member have a vote to determine how club monies are spent and what the club does.

As listed above, we have three good coverage 220 MHz repeaters and two 440 repeaters for anyone to use. SARA also has an annual Field Day outing, and the club has placed 1st in the 3-a battery class most of the six years we have operated. This means 1st in the entire U.S.A.! We won again this year.

Our Annual Crabfeast is held in September every year. It has been a running joke in our group that for a member's \$10 in dues, he gets to eat \$50.00 in food and beer!

More details will follow on the club and it's activities. See you on the SARA repeaters soon?

Tim - N3DRB

Tri-County Amateur Radio Club

Meetings: Semi-annual business meetings, time and date announced on the air and in the club newsletter.
Repeater: KA3LAO/R, 147.780 MHz in; 147.180 MHz out.
On-the-air: Tuesdays at 1930 hours (Local time).
Amateur Radio Newslines Tuesdays at 1915 hours (Local time).
Mailing: P.O. Box 10592, Silver Spring, MD 20914

As many of you know, the Tri-County and Goddard hamfest, HOLIDAYFEST '92, was held at the P.G. Community College, Largo, Maryland, on Sunday, December 6, 1992. All of the planning paid off with a very successful event. Even the weather cooperated with the winds, clouds, and temperature moderating from the previous day. While the official figures are being compiled, it appeared that attendance was much better than last year. Increasing the space for the tailgating helped that event. Congratulations to the 41 people who took their upgrade tests through the Laurel VEC program. Planning for next year's event has already begun. Mark your calendars now.

Tri-County is planning to have club dinners beginning in January. Either tune into our on-the-air net or watch this space for the times and places. What could be better than good food and good company? (Everyone knows that answer: Good DX, of course).

Our trustee, John - KA3LAO, has made more improvements in the repeater receiver system. John, with the help of a number of members, has added two new receiver sites and shut one down. We now have a total of six receiver sites and a significant improvement in coverage in several areas.

(Continued on page 43)

Springfield Estates Elementary School ARC

Meetings: First Friday of every month at 7:30 p.m., Springfield Estates Elementary School, Room 2, 6200 Charles Goff Drive, Springfield, VA
President: Ben Mudrak - KD4CNV (703) 971-7710
Vice Pres: Will Schmitt - KD4CNX (703) 768-5709
Secretary: Luke Ward - KO4IQ (703) 922-6545
Treasurer: Richelle Brown - KD4MFB (703) 690-0129
Mailing: SEESARC, 6200 Charles Goff Drive, Springfield, VA 22150

SEESARC started a new Novice class in the month of October for the many students and parents interested in this fascinating hobby. We have over thirty operators, of whom a large majority are Novices. We are happy to report that we have nine Technicians who hopefully will upgrade and obtain a General class license in the near future.

Many of the Technicians participated in the 1992 annual Jamboree On The Air held at Fort Belvoir Park. We participated along with the annual Scout Camporee. It was a very interesting time for those who attended this fabulous event. There were over a thousand people there! We had two HF rigs set up, and two VHF rigs. We demonstrated one VHF packet station. The members of our club who demonstrated Amateur Radio to the scouts included Bill Schmitt - KD4CNS, Sam Mudrak - KD4CNR, Ben Mudrak - KD4CNV, Keith Ward - KO4IO, and Luke Ward - KO4IQ. Many of our members participated in the scouting events that day, and did not have time to help with the JOTA demonstrations.

In our November SEESARC meeting we were presented with a report on our club assets which was \$175.49 presented by our treasurer Richelle Brown. We had a discussion about making some club T-shirts. It was announced that a letter of appreciation had been sent to the Alexandria Gazette for coming to our club meeting in September. They later published a nice article in the paper. Many of our members shared their QSOs with the club. After everyone heard the locations they were convinced that the 10-meter band had been very active recently.

Our club would like to thank the Vic Clark Chapter of the Quarter Century Wireless Association for the donation of a VIC 20 computer and a Heathkit Model 10-18 Laboratory Oscilloscope. We plan to make good use of both of these items in our Novice classes this year.

We'll go back and get a DX contact on the other side of the world!!!

Vishal Madhavan - KD4EKD

Tri-County Amateur Radio Club - Continued

The six receiver sites are: Ashton, Bowie, Northwest Washington, Andrews Air Force Base, Damascus, and Seat Pleasant. The former White Oak site was deactivated. Make sure you let John know how these changes are working.

The 18 machine serves as the base operating point for the Prince Georges County ARES/RACES organization. They meet each Wednesday at 2100 local for their on-the-air training and information net. Members should note the time change and those who would like to participate are encouraged to join the net.

Don't forget the Tri-County on-the-air net which meets each Tuesday at 1930 local. If you are listening at 1915 you will hear the latest NewsLine information, ARRL bulletins, propagation forecasts, and the latest exam schedules throughout the area. NewsLine is an Amateur Radio news service from California which always has information of interest to the Amateur community.

As we begin a new year let us make a resolution to make sure we are prepared for any emergency by maintaining our equipment and continually improving our operating skills.

Greg - WA3FSC

Metropolitan Communications Network

Representing Six Meters in the Greater National Capital Area

Meetings: Quarterly, on the second Sunday of the month.
Time and place to be announced.
Repeater: N3AGB/R, 52.250 MHz in; 53.250 MHz out.
Accessible on 147.36 MHz and 444.35.
On-the-air: Saturdays at 1900 hours EDT
Mailing: Bob Sporn - WA3GGO, 9927 Cottrell Tr, Silver Spring, MD 20903
Information: Bob Sporn - WA3GGO (301) 434-1719

We apologize for having forgotten to note the change from Daylight Saving Time to Standard time in our last article. No wonder we found a diminution in net participation!

THE SUNDAY MORNING COFFEE NET (50.4) MHz at 0900 Hours EST. We have been having an increase in check-ins. Bob Curry - KC3VO participated in the Marine Corps Marathon with ATV. Rick Weaver - KA3BTD worked Croatia, as did Stan Brigham - W3TFA. Stan also worked Slovenia and Macedonia.

MARYLAND FREE STATE SIX METER SIDEBAND NET (50.125 MHz) Sundays at 2000 Hours
Now that we have ourselves straightened out about the time change, we find more check-ins on the Freestate Net. Recently, Stanley Musick - KA8SFP of Stafford, Virginia checked out early because of an impending storm. Seven hours later it reached us in Silver Spring, and we had had enough time to disconnect our antennas.

Bob - WA3GGO

Green Mountain Repeater Association, Inc.

Meetings: Board of Directors / Control Operators, Last Monday each month.
Luncheon: First Saturday each month, 11:30 a.m. at Fountain Cafe,
Laurel Shopping Center Mall, U.S. Rt 1 (Baltimore Avenue) and Cherry Lane.
Repeaters: KD3VR - 146.61 (Cheverly) and K3GXF - 146.88 (Greenbelt)
Mailing: GMRA, P.O. Box 429, Riverdale, Maryland 20737
Information: Boyd Nelson - KZ3Z (301) 434-0934

The Green Mountain Repeater Association is happy to announce that the response to the request for contributions and donations to help maintain its two repeaters was overwhelming.

The Board of Directors at its monthly meeting was well pleased with the results after going over the incoming mail and correspondence. I was able to have a brief QSO with Joe - KD3VR on one of the 2-meter repeaters this morning and he passed along the good news. Joe, I know, is really happy with the response of the many members and friends who understand all the hard work involved in keeping two repeater sites up and running.

This is the time of year for joy and happiness, and GMRA would like to thank all

the members and contributors who answered the call for help. We, as members, would also like to thank the Board of Directors and Trustees for all their volunteer efforts. Below is a list of that Board.

President: Joe Nunemaker - KD3VR
1st V.P. : Paul Freirich - W3HFA
2nd V.P. : Carey David - N3GYB
Secretary: C.T. David - K3GXF
Treasurer: Boyd Nelson - KZ3Z

Once again, Happy Holidays to all and to those special people of the Foundation For Amateur Radio and to the staff of Auto-Call magazine.

Ken Easton - N3HLY

Maryland Mobileers

Meetings: First Friday of each month at 7:30 p.m.
Anne Arundel County Emergency Operations Center, Crownsville, MD
On-the-Air: Every Monday night at 8:30 p.m. on 146.205/805
Address: P.O. Box 935, Severn, Md 21144
Information: Rod Mann (410) 647-0005

In November six members of the Maryland Mobileers visited Amateur Radio's mecca - W1AW and ARRL Headquarters in Newington, CT. The entourage consisted of Bill - WB3V, Bob - K2EB, John - KO4A, Chad - K3IKO, Mac - WN3C, and Jerry - NU3D. The two vehicle caravan included VHF and HF. While on the way to Newington, the group established two-way voice contact with Brent - NR3G, in southern Maryland, via the Russian satellite RS-10. The group met with several league officials and operated on-the-air with the W1AW equipment. Bob - K2EB stated afterwards that there were two things every ham should do once in his career: visit ARRL Headquarters and go to the Dayton HamVention. Bob has his bags packed for the next Newington trip.

The Maryland Mobileers Traffic and Information Net meets each Monday night at 8:30 p.m. on the club repeater, 14.205/146.805. Since the club newsletter comes out only once each month, the net is the best place to keep up with current club information. Plan on visiting the net for a

few minutes each Monday night. After a few minutes of club information and announcements, check-ins are invited to stick around for informal comments.

Beginning in January, a course in emergency communications will be held at the Anne Arundel County Emergency Operations Center in Crownsville, Maryland. The course will cover ARES, RACES, and traffic handling. Watch this space and listen to the club net for information on the course.

The Mobileers will be supporting the Baltimore Amateur Radio Club's Greater Baltimore Ham and Computer Fest in March. We need volunteers to help with security and ticket selling. Anyone wishing to help out can contact John Kohl - KO4A on packet at KO4A @ WB3V or (410) 757-8148 at home.

Future club activities include a QRP presentation in January, a presentation on power supplies in February, and a tour of C & P facilities in March.

Jim - N3EI

Sophisticated Science

Research is under way to "map" the 50,000 to 100,000 genes that make up the hereditary characteristics of a human body. Known as the Human Genome Project, research has already developed a crude map and probable identification of a salt-retention gene associated with inherited forms of high blood pressure, and a gene which is responsible for an inherited deafness called "Waardenburg syndrome." Once scientists know the specific location of the genes, they can design interventions to the activity of the culprit gene.

Genes are strung like beads on a necklace along 23 pairs of chromosomes in a predetermined order. The genes transmit hereditary characteristics to their bearer. The potential for this research is staggering. The "gene map" would display an individual's genetic inheritance and his susceptibility to certain diseases and inherited conditions. Doctors could anticipate health threats from the time of birth and provide early treatment - and possibly even the use of gene therapy to change the threats. Scientists are visualizing an automated DNA analyzer that would use only a few drops of blood from the patients finger.

As might with be expected, there are immediate reactions to the possible abuses of such information, and some people really don't want to know what their future may hold - even if that information might provided an opportunity to alter the outcome. We may have to make some decisions, weighing the values against the risks.

Carroll County Amateur Radio Club, Inc.

Meetings: 2nd Monday at 7:30 pm, Carroll County E.O.C.
Washington Road (Rte 32) 1 mile north of route 97, Westminster, MD.
Repeaters: 145.41 MHz, 449.875 MHz
Mail : CCARC, Inc., P.O. Box 2099, Westminster, MD 21158
BBS : K3PZN, 145.03 MHz

In 1992 the Carroll County Amateur Radio Club had increased membership and activities. We are up to 148 members, and still growing.

Members of our ARES group, AKA the Carroll Amateur Radio Emergency Team (CARET), provided communications for the Carroll Earth Day bicycle event. Headed by Carroll County EC Doug Bumstead-N3CWG, the team was active with members at various check points, sag wagons, dangerous intersections, and the race headquarters.

For Field Day, the Club entered class 2A. Along with the sideband and CW stations, we had a Novice/Technician, a OSCAR, and a Packet station. Sustaining the energy needed for such an operation, a pot luck dinner on saturday and breakfast sunday morning, kept

those contacts accumulating and provide a nice social atmosphere to keep the stress levels down. The club finished 16th in Class 2A.

In September, the Club provided the First ever special event station for the F.A.R. FEST® at Gaithersburg.

In October, the CARET team got together again for the S.E.T.

Also in October, the Club, joined with the Pen Mar Amateur Radio club from Hanover, PA, sponsored the MASON-DIXON Hamfest in Westminster. We had a beautiful day, and a good showing of hamfest enthusiasts.

In December, the Club had its annual Holiday Party. With the club growing, we may have to move to larger facilities next year.

THE NETS IN CARROLL COUNTY:

Tuesday	CARET NET (ARES)	145.41 MHz	2030L
Thursday	Open Net	145.41 MHz	2000L
Saturday	RTTY	28.115 MHz	2000L

Larry - WX3F

SEE YOU AT THE 1993

F.A.R.FEST®

SUNDAY, SEPTEMBER 12 1993

**Montgomery County Agricultural Center
(Fairgrounds) Gaithersburg, Maryland**

Stafford Amateur Radio Association

Meetings: Weekly, 0730 a.m. every Saturday morning, at the McDonald's east of the I-95 exit to Stafford Courthouse
Repeater: N4SMP/R 145.27 out 144.67 in. Autopatch for members.
Mailing: c/o George Gautney - N4SMP, 9 Skyview Ct., Stafford, VA 22554-5232
Information: Dick Kirby - W4GFB (703) 720-0406 or George Gautney - N4SMP (703) 659-5720

Watts - KC4WVM is back in the news this month. It seems he decided to get into satellite work, so he had some friends over and set up a really nice antenna system. It looks good and it even tracks beautifully. It's only problem is that he didn't pay adequate attention to the placement of a few other structures, antennas, etc., in the area, so it can only be elevated enough to hit satellites in low earth orbit (say, 50 or 60 feet off the ground).

SARA is working closely with several Stafford area schools to coordinate communications with the Shuttle scheduled for

launch in March. Our only concern is that the coordination is being managed by a Marine. Fortunately, the launch isn't, so we expect any disasters to be harmless and confined to the ground.

I've also been instructed to tell everybody what an incredibly grand time all the club members had at the Christmas party on the sixth of December. But since it won't be the 6th of December for several days yet, that will have to wait until the next issue. We wouldn't want to be responsible for publishing anything untrue or exaggerated!

Spike - K9MX

Pentagon Amateur Radio Club

Meetings: Monthly, on the second Wednesday of the month. Noon.
PARC clubroom (5B272), The Pentagon
Repeater: KA4F/R, 444.55 MHz. CTCSS 88.5 sometimes in effect
Packet: 145.07 Digi - K4AF, Mailbox - PARC, Node - PNTAGN
Information: David G. Boyd - K9MX (703) 659-6241 (H)

First, and of great importance to the club, is that we have a new secretary. This time we drafted a Canadian - Captain Mike MacGregor of the Canadian Air Force. Mike doesn't have a Canadian amateur radio license, but he decided he wanted to earn a U.S. license while he was detailed to the Pentagon. (We're not sure what he did to make the Canadian forces angry enough to sentence him to the Pentagon!) Anyway, he picked up a U.S. call, KD4SIJ, and plans to "upgrade" to a VE when he goes home.

Second, and of interest to those who aren't currently members of the Pentagon ARC, is that our illustrious president, NH6E, finally got the 444.55 MHz repeater moved and installed on a very nice National Communications System tower in Alexandria. The machine now covers even more than the North and South parking

lots and the intermod problems that used to plague the machine are now gone. The repeater is open to any ham with a 440 MHz radio.

Thomas M. Salvetti - KC3NF, made a visit to the Pentagon a few months ago to see the sexy new Titan amplifier at work in the clubhouse. Since he's the marketing vice president for Ten-Tec, he also took the opportunity to take pictures.

And Carole Perry - WB2MGP, made a visit to the station. Carole is the mastermind behind the 10 meter schools net you've read about, and maintained a daily schedule with the Pentagon for a good part of the summer. Not a few young hams and prospective hams enjoyed talking to the Pentagon under Carole's careful tutelage.

Spike - K9MX

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Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone and all ads must be pre-paid. Since no effort is made to investigate advertisers, no warranty can be implied.

Copy must be received by the 5th of the month preceding publication.

WIDOWS' ASSISTANCE PROGRAM

The Foundation's For Amateur Radio's Widow's Assistance Program has been in operation for many years and has accomplished a great deal for the families of our Silent Keys. The program offers to help widows (and other family members) evaluate and dispose of radio equipment in an Amateur's estate. Listings of Estate Sales are carried in the Shack Sales of Auto-Call magazine free of charge, and major items may be offered for sale at local hamfests, etc. No fee or commission is charged the families.

One other option that should be considered is donating equipment to a club and taking a tax write-off for the charitable contribution. The Widow's Assistance Program can help you find a club that will make good use of the equipment. Some commercial operations are also willing to purchase the complete list of equipment and clear everything out at once. This may be the quickest solution in disposing of an estate.

Every ham is encouraged to maintain a list of his/her radio equipment, with realistic evaluations, and instructions on the disposition of any specific items. Keep your family advised of your wishes.

For more information about the Widow's Assistance Program contact any of the local Foundation member club or call Tony Young - WA3YLO at (301) 262-1917.

FOR SALE: Kenwood TS-530S \$325
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MC-50 Microphone \$20
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Bencher Paddle \$45
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unit. Recorder recently professionally cleaned
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Panasonic color camera with tripod. All
accessories-AC adapter, hook-up cables, etc.
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Jim - W6NRJ. (301) 977-8583, Gaithersburg,
Maryland (01)

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Cliff - W3LVC, Telephone (410) 796-1070,
6904 Montgomery Road, Elkridge, MD (02)

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Hustler 5BTV Vertical \$50
Used Andrew LDF5 7/8" Hardline, 60 to 350 foot lengths. Used Andrew 7/8" connectors. Dave-N3EJT (301) 474-7405 College Park, MD (12)

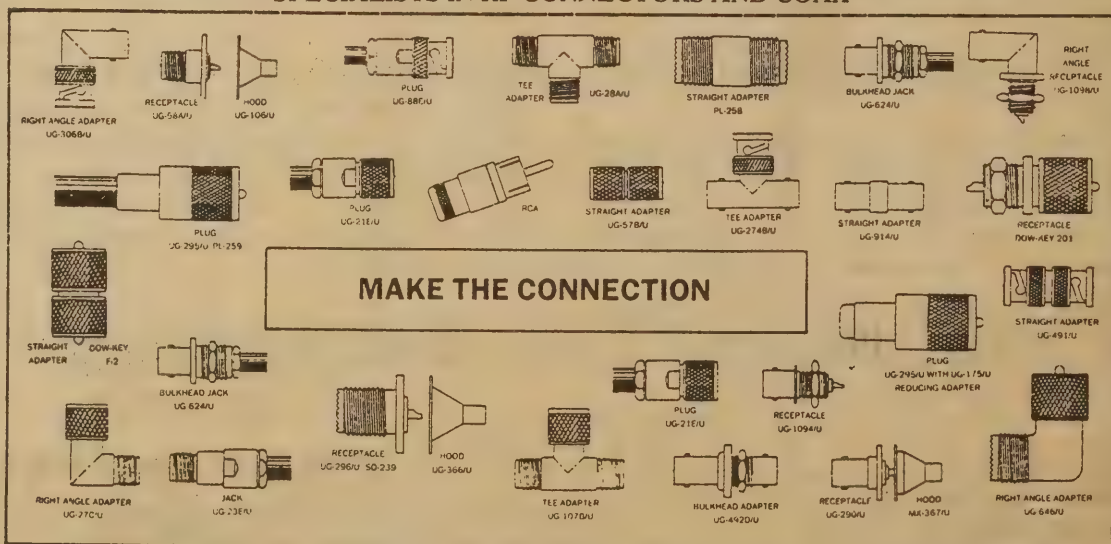
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Amateur, Broadcast or Government, 1900-1930. Bob Arrowsmith-W4JNN, PO Box 166, Annandale, VA 22003 or phone collect (703) 560-7161. (01)

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Fellow Sparks enthusiastically applaud: "Outstanding," Kemp Richter-K7UQH; "Can't put the book down," Ken Johnson W6NKE; "Best book ever written about marine operators," Doug Stivison-NR1A. ... Reviewers, too: "Nostalgic spirit surrounds tales told," *Popular Electronics*; "Fascinating Book," *Radio Bygones*, U.K. "You just have to see QTC," *Amateur Radio Action*, Australia. **HARDCOVERS SOLD OUT! BUT 80 PAPERBACKS STILL AVAILABLE—\$11.00 total cost.** Write **SEQUOIA PRESS/KA5HCX**

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WANTED: HAM EQUIPMENT AND OTHER PROPERTY. The Radio Club of Junior High School 22 NYC, Inc. is not only the Big Apple's largest Ham club but also the nation's only full-time non-profit organization working to get Ham Radio into schools around the country as a theme for teaching, using our **EDUCOM—Education Thru Communications—**program. Send your radio to school. Your donated Amateur or other property, which will be picked up or shipping arranged, means a tax deduction to the full extent of the law for you, as we are an IRS 501(c)3 charity in our twelfth year of service. Your help will also mean a whole new world of educational opportunity for children around the country. Radios you can write off, kids you can't. Please write, phone, or FAX the "22 Crew" today: The RC of JHS 22, POB 1052, New York, NY 10002. 'Round the clock telephone (516) 674-4072 and FAX (516) 674-9600. Young people, nationwide, can get high on Ham Radio with your help. Meet us on the **WB2JKJ CLASSROOM NET**: 7.238 MHz 1200-1330 UTC and 21.395 Mhz 1400-2000 daily. (01)

FOR SALE: DREAM LOCATION . . . \$230K

All directions clear, 25 miles westward. Six room all brick rancher. 1 1/2 baths, 30 x 30 attached brick garage. 35 x 40 new out-building. Two level acres. Rural and will remain rural. Near Howard County Fair Grounds. One city block west of route 32 and 99 intersection. Retired and going west. Guy Lalic-W3OIV (410) 489-5037 (C01)

Century 21

Teachers, Inc.

1037 Sterling Rd., Suite 101

Herndon, VA 22070

(703) 742-6900

**NOW IS THE TIME
TO
BUY!**

**FOR PERSONAL
SERVICE:**

F. Dale Williams, K3PUR

Realtor

(703) 437-4818

SHACK SALES

TEST EQUIPMENT, ETC.

Tektronix Model 531 oscilloscope \$85
 ? Marker Oscilloscope \$30
 Precision Tube tester \$100
 Westinghouse Signal corp RF sig meter
 #1-106-A \$25
 Admittance bridge \$85
 ? Do all TV generator \$15
 Eico Model 666 tube tester &
 transistor tester \$10
 RCA Test oscillator \$35
 HP Model 412AR vacuum tube voltmeter \$45
 HP Model 412AR vacuum tube voltmeter \$45
 HP Model 525B frequency conver unit . \$15
 General Radio Comparison oscillator. . \$25
 Leading Edge Monochrome monitor . . \$35
 Eico 955 in circuit capitor tester . . . \$25
 IBM Monochrome monitor \$35
 Drake ESR 324 Satellite Receiver . . . \$35
 Eico 666 tube tester and transistor checker \$25
 Welex Reference generator \$15
 Dovetron MPC-1000CR RTTY terminal unit \$150
 Dovetron MPC-1000R RTTY terminal unit \$150
 Military BC221 frequency meter . . . \$25
 HP Audio generator \$35
 Homebrew Electronic keyer \$15
 Premier Large amplifier construction cabinet \$35
 Mariner Marine monitor & receiver . . . \$15
 Skypoint Ham Shack, (703) 787-5750 or
 (703) 437-1559, 11561 Southington Lane,
 Herndon, Virginia 22070 (C01)

STOCK QSL CARDS

100 \$14.00 - Shipping FREE
 Send SASE for Samples
 K3UAL Print, 1520 Jutewood Avenue
 Hyattsville, MD 20785
 Phone (301) 773-9383 or 773-5074
 (11)

WANTED: For ATV:

Video camera (without taping capability)
 or a camcorder; Also older cameras, especially
 Leica and the unusual; Also collect old
 fountain pens. Gerald Rose-KB4QGJ Phone
 (703) 370-1880, 524 N. Quaker Lane,
 Alexandria, VA 22304-1827. (06)

WILL SWAP: My shipboard sound powered
 phones and other Navy memorabilia from
 WWII for your old vintage fountain pens,
 whether in working order or not. G.J. Rose-
 KB4QGJ, 524 North Quaker Lane, Alexandria,
 VA 22304 (703) 370-1880 (02)

FOR SALE: CUSHCRAFT AV-5 Vertical
 Antenna 10-80 meter 5-band 2 kW, with
 manual \$85
 CUSHCRAFT Ringo Ranger II ARX-2B. Covers
 134-164 MHz 2-meter \$25
 Jerry - N3EGC (410) 268-0504, Annapolis, MD
 Call 4:00 p.m. to 9:00 p.m. or leave message
 on recorder. (01)

The AMATEUR RADIO NEWS SERVICE is an
 organization of publishers and editors of
 Amateur Radio newsletters and members
 engaged in public relations. Its purpose is
 to assist editors in any way possible.
 For information, write to Lee Knirko - W9MOL,
 833 Park Plaine, Parke Ridge, IL 60067 & Swp)

SLIDE RULES WANTED

All Types for Museum Display

Bob Hill - NK3W

200 Agnes Lane, Linthicum, MD
 (410) 789-4772 Zip 21090-170205



PHD Associates -- Leesburg, Va. -- 703 777- 6949

-The QUANTUM HAM BATTERY --HT Power for Life!...Limited time!..\$128!
 -The HT HOLSTER.....\$34.95
 -The HT HOLSTER for your HT and QUANTUM HAM BATTERY.....\$39.95
 -VECTRONICS Vector 500 RF Amp.....\$859!
 -VECTRONICS HF600-QSK RF Amp. (Oct. CQ,p.16,17; 73 p.70).....\$1289!
 -VECTRONICS HFT-1500 3KW Tuner.....\$379!
 -STANDARD Radio C528A 2M-440 H-T\$439!

Other Major Brands Available -- CALL for Info and Current Prices! DISCOVER Card accepted!

SHACK SALES

USED EQUIPMENT & ACCESSORIES

COLLINS: 312B-4 station control	\$165	HEATH: EK-2 receiver. As is	\$25
COLLINS: Mobile power supply	\$50	HEATH: QF-1 Q/multiplier	\$15
COLLINS: 351D-2 mobile mount	\$35	HEATH: HM-11 SWR bridge	\$10
TRIAX: Transmitters:		AMECO: 6 & 2 mtr transmitter	\$35
(2) Triax/500 cw,am,ssb	\$750	AMECO: 6 & 2 mtr transmitter	\$35
HARRIS: Model RF-103A Linear Amplifier		HyGain 2 meter vertical ant.	\$35
with remote antenna tuner	\$3500	AEA: CP-1 computer patch	\$75
KENWOOD: MC-50 desk microphone		STANCOR: ST-203A 10m mobile	
excellent condition	\$50	A collectable. Exc. cond.	\$85
GONSET: Twins. G-77, G-66		DRAKE: TR4-C, MS4 speaker,	
Complete mobile. Exc. cond	\$400	AC-3 P/S. Good condition	\$375
GONSET: Superceiver & VFO		Tpe/Tone: TC-10B preamp converter	
mobile unit plus misc	\$35	As is.	\$20
TMC: AN/URA-28 modulator &		Tpe/Tone: XC-144B 2 mtr converter	
matching power supply	\$285	As is	\$20
GLOBE: Sidebander. As is	\$35	B & W: L-1000A linear amplifier	
GLOBE: Scout deluxe. As is	\$35	2-813 finals. Exc cond.	\$475
GLOBE: Star. As is	\$25	ICOM: IC-WKL, IC-2KLPS linear	
GLOBE: HG-303 80-10m mobile		amplifier. Boxes. Exc cond.	\$1200
transmitter	\$25	INFOTEC: M200E decoder	\$175
HUNTER: Station control &		ANTRON: Antron 99.11 m vertical	\$50
phone patch for parts	\$15	BUD: Code practice oscillator	\$15
HLCFTRS: Loudenboomer linear		3/boxes assorted radio crystals	\$50
amplifier. Plus 160m mod		Military BC-659 radio receiver. "New"	\$85
Excellent	\$350	Military BX-454 80 meter Xmtr	\$25
HLCFTRS: S40-B receiver. As is	\$35	TANDY: 1400 MS-DOS laptop computer	
HAMLND: HQ-170 receiver.		& Diconix inkjet printer	\$400
Good condition	\$100	ALPHA: PA70V HF linear amplifier	
HAMLND: 110A/VHF receiver.		Full rating	\$2000
Good condition	\$100		
HEATH: Warrior amplifier. Has		Skypoint Ham Shack, (703) 787-5750 or	
160 mtr mod. Exc. cond	\$350	(703) 437-1559, 11561 Southington Lane,	
HEATH: HD-19 Hybrid phone patch	\$10	Herndon, Virginia 22070	(C01)



Quarter Century Wireless Association, Inc.

Licensed at least 25 years ago?

And licensed now

Then you should belong to the

Quarter Century Wireless Association

For information write

159 E 16th Avenue

Eugene OR 97401-4017

HAM HEAVEN DC/BALTIMORE AREA

120 foot tower. Park-like 5.9 acres.
 Customred brick colonial home in Howard County. Four bedrooms, 3½ baths. Office/hamshack. Large kitchen, formal dining room, living room, family room with Federal Airtight wood stove, sewing room. Large in-law apartment or recreation area. Large attached 2-car garage with remote. Hot water heat, central air conditioned. Hardwood floors, built-ins. Stocked pond, open pasture, shed. Horses OK. Forest. Wildlife. \$365,000
 Ron-K6XE and Linda-N6KON Vivian. Phone (301) 854-0253, P.O. Box 275, Ashton, Maryland 20861 (12)

AUTO-CALL POLICY

PRODUCTION POLICY

Copy for Auto-Call will be accepted in any form - handwritten, typed, compatible computer disk or modem. All hard copy is reformatted to preserve uniformity of style in the magazine. We use Word Perfect 5.1 word processing program, Hayes compatible modem (300 or 1200 baud) and can use either 3½" or 5¼" MS-DOS diskettes. We don't do Windows.

In determining space requirements, figure about 600 words per page (50 lines at 12 words per line), including the space taken up by headings, photographs, etc. Either black-and-white or color photos can be used as long as the contrast is good. Master copy, which is to be reproduced directly, should be in black ink on white paper and should be in proper page ratio. (Copy space is 7" wide by 9" high.) Copy can be reduced or enlarged as necessary.

Columns from Foundation member clubs are eagerly solicited and any items of general Amateur Radio interest are most welcome. The editor does reserve the right to edit or reject any portion of any copy submitted and to make minor changes to make copy fit available space.

SHACK SALES

Deadline for copy is the 5th of the month preceding the publication date. Shack Sales will NOT be accepted over the telephone. Full address must be provided for our reference but need not be published. Each ad must include the call sign or the full name of the advertiser. If the full address is not included, we prefer to include the city along with a telephone number so that readers will know whether a long-distance charge is involved. The entire telephone number - including city and state - is counted as only one word. We do not count postal zip codes. Otherwise, each word, abbreviation, model number or group of letter/numbers is counted as one word. Remittance must accompany each ad.

See next column for additional information on advertising. For further information, phone the Auto-Call editor at (703) 536-8469, McLean, VA.

ADVERTISING

SHACK SALES

Non-commercial advertising of Amateur associated equipment is available to subscribers of Auto-Call at 3¢ per word - with a \$1.00 minimum. Commercial vendors and non-subscriber rate is 17¢ per word - with a \$5.50 minimum.

Special headings or special spacing may be used (e.g., one item per line) but such ads are charged at a column inch rate - \$1.00 per column inch for non-commercial ads, \$5.50 per inch for commercial vendors and nonsubscribers.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone. Since no effort is made to investigate advertisers, no warranty can be implied.

DISPLAY ADS

DISPLAY ADS are "boxed" and may contain artwork or photographs. They may be placed along with the Shack Sales or displayed in other sections of the magazine. Requests for specific locations will be honored if practical but cannot be guaranteed.

Display ads are charged according to size and duration of run as shown below. All advertising must be pre-paid for at least the current month.

		Rates per Issue			
Page	Col.inch	1 Year	6 Times	3 Times	1 Time
Full	18	\$75.00	\$90.00	\$100.00	\$105.00
1/2	9	55.00	65.00	71.00	75.00
1/3	6	40.00	46.00	51.00	54.00
1/4	4½	33.00	38.00	41.00	43.00
1/6	3	22.00	26.00	28.00	30.00
1/8	2¼	17.00	20.00	22.00	23.00
1/9	2	16.00	19.00	21.00	22.00
1/18	1	8.50	10.00	11.00	11.50

Based on camera-ready copy.
Extra charges for halftone photos
and for in-house artwork or layout.

Copy must be received by the 5th
of the month preceding publication date.
(e.g., Copy for November issue must be received by 5 October)

All Advertising Must be Pre-paid



JOIN ARRL

BENEFITS FOR YOU

QST, QSL Bureau Awards, Low Cost Insurance Operating Aids,
Government Liaison and More—Much More!

MEMBERSHIP APPLICATION

Name _____ Call _____

Street _____

City _____ Prov./State _____ PC/ZIP _____

\$30 in U.S. \$42 elsewhere (U.S. funds) Licensed amateurs or age 65 or over, upon submitting proof of age, may request special dues rate of \$24 in the U.S. \$36 elsewhere in U.S. funds. Persons age 17 and younger may qualify for special rates, write for application.

For postal purposes, fifty percent of dues is allocated to QST, the balance for membership.

VISA, MC, AMEX, Discover # _____

Signature _____ Expires _____

The American Radio Relay League

225 Main St. Newington, CT. 06111 USA AUTOCALL

Atlantic Division Director
Hugh Turnbull, W3ABC
6903 Rhode Island Avenue
College Park, MD 20740
Phone: (301) 927-1797

Roanoke Division Director
John Kanode, N4MM
Rt 1, Box 73-A
Boyce, VA 22620
Phone: 703-837-1340

AUTO-CALL Magazine

P.O. Box 7612
Falls Church, VA 22040

Please enter my NEW _____ RENEWAL _____ GIFT _____ subscription to Auto-Call

For 1 Year _____ 2 Years _____

Subscription rate: \$8.00 per year.

(Sample copy of latest issue \$1.00)
will be applied to subscription

NAME _____ CALL _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Make check payable to the Foundation For Amateur Radio

JANUARY 1993

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Mobileers Shennandoah	2 Green Mtn Stafford
3	4 Adams County Dept of State IBM	5 Antietam PG Wireless	6 BARC MARC	7 Anne Arundel MADRAS	8 Alexandria SMARC Vienna	9 Stafford
10	11 PVRC Carroll Cnty	12 Frederick Fauquier Woodbridge	13 Pentagon S. Patuxent --- FAR ---	14 AMRAD Mt Vernon No. Virginia	15 Rock Creek Shennandoah	16 Capital City Stafford -
17 AMSAT	18 Ole VA Hams Sterling Park	19 Antietam Arlington	20 BARC Goddard MARC QCWA #137	21 Anne Arundel QCWA #20	22 Central MD Vienna	23 Stafford
24 31 Adventists	25	26 Columbia	27 Laurel QCWA #20	28 St. Marys	29	30

NCDXA Net every Sunday 147.000 at 8:30 p.m.

AUTO-CALL

P.O. Box 7612
Falls Church, VA 22040 - 7612

ADDRESS CORRECTION REQUESTED

FIRST CLASS

93/09 02649
ALFRED A LAUN III K3ZO
PO BOX 31097
TEMPLE HILLS MD 20757-0097

